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UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

BEFORE THE HONORABLE WILLIAM H. ALSUP

ORACLE AMERICA, INC.,)	
)	
Plaintiff,)	
)	
VS.)	No. CV 10-3561 WHA
)	
GOOGLE, INC.,)	
)	
)	San Francisco, California
Defendant.)	Wednesday
)	April 20, 2016

TRANSCRIPT OF PROCEEDINGS

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(Appearances continued on next page)

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Wednesday - April 20, 2016

8:00 a.m.

P R O C E E D I N G S

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THE COURT: All right. Why don't we call the case again.

THE CLERK: Calling CV 10-3561, Oracle America, Inc. vs. Google, Inc.

Counsel, please step forward to the podium and state your appearances.

MR. BICKS: Good morning, Your Honor. Peter Bicks from Orrick for Oracle, and I will introduce the folks, if Your Honor would like. I think you know everyone.

THE COURT: I think I know your team. Okay. And over there.

MR. VAN NEST: Good morning, Your Honor. Bob Van Nest, Keker & Van Nest, for Google. I'm here with Christa Anderson and Steven Ragland, Elizabeth Egan, Maya Karwande, K-A-R-W-A-N-D-E, and we're here with Mr. Renny Hwang from Google. Mr. Kwun is here as well, Michael Kwun.

THE COURT: Great. Welcome.
Mr. Cooper.

MR. COOPER: John Cooper on behalf of Dr. Kearl.

THE COURT: All right. Welcome.
Mr. Bicks, who else is with you today?

MR. BICKS: Right here is Robert Keele, Annette Hurst,

1 Ayanna Lewis-Gruss, Gabriel Ramsey, who will be handling one of
2 the arguments today, Andrew Kim, Lisa Simpson. And then our
3 client, Matt Saboraria, Deborah Miller, and Ruchika Agrawal,
4 and I see Mr. Temkin is there as well. And I see Ms. Caridis
5 over there.

6 **THE COURT:** So there are actually no members of the
7 public here then. It's all clients and -- okay. Let me just
8 ask you, is there anybody here who is not associated with one
9 side or the other? I'm just curious. Nobody. Everyone in the
10 courtroom is one side or the other. Okay.

11 Today I'm going to -- I have to -- I have to adjourn by
12 noon, so we've got four hours, but I want to make sure we cover
13 everything so we may have to -- I just may have to cut some of
14 your arguments short and move on.

15 Help me with this first. Let's make a list of the most
16 important things that we want to make sure we cover on these
17 motions today. Let's start with Dr. Kearl's report. What are
18 the most important things that we want to hear about that?

19 **MS. HURST:** Your Honor, without duplicating
20 yesterday's discussion of NIAs, I think we do need to discuss
21 whether the use of the Kim econometric model is an NIA and
22 whether, independently of that, it is inadmissible for other
23 reasons that Oracle has addressed in both the Leonard and the
24 Dr. Kearl motions.

25 **THE COURT:** But that goes to Dr. Kearl as well as

1 Leonard; right?

2 **MS. HURST:** Correct, Your Honor.

3 **THE COURT:** What else did you want to bring up, if
4 anything, on Kearl?

5 **MS. HURST:** I think that's the main issue for us,
6 Your Honor.

7 **THE COURT:** Okay.
8 On your side?

9 **MR. RAGLAND:** With regard to Dr. Kearl, perhaps it can
10 be relatively short because actually both sides agree at this
11 point, given where we are, Dr. Kearl's guidance doesn't really
12 add much or will clarify issues for the jury. I think both
13 sides would agree that it's not proper for him to testify in
14 this case. So maybe we can cut that short.

15 **THE COURT:** That's not what you said before.

16 **MR. RAGLAND:** Well, where we are now, both sides have
17 moved to strike certain of his opinions. Some of the same
18 opinions both sides have moved to strike for different reasons.
19 And I'm happy to go into the arguments. There are three of his
20 opinions --

21 **THE COURT:** No, no. Look, I asked for one sentence.
22 You're giving me a long speech. I don't want to hear about
23 knocking out my 706 expert yet. Time permitting, maybe we'll
24 get there.

25 It's a little strange that Google has changed its mind.

1 Maybe Dr. Kearl wound up not supporting you and so now you
2 don't like that. Three billion dollars is a lot of money.

3 **MR. RAGLAND:** Well, Your Honor, if there is one of his
4 opinions that will go out, it is one that does relate to the
5 Kim opinion and we believe is based on assumptions that do not
6 have a factual basis.

7 **THE COURT:** All right. I'll save my wisecracks for
8 later.

9 What else do we want to take up for today?

10 **MS. ANDERSON:** Your Honor, I think there is also a
11 little bit more that we were going to present just to describe
12 for the Court some aspects of Dr. Leonard's opinion that I
13 think would be helpful for the Court to understand, and that
14 shouldn't take very long. It's a brief discussion.

15 **THE COURT:** But on Dr. Leonard, don't you have
16 objections to him?

17 **MS. HURST:** We do have, Your Honor. The other issue
18 that we haven't discussed, without repeating what was said
19 yesterday, is whether the average valuation line of code
20 approach is admissible or not, Your Honor. That's
21 Dr. Leonard's two top-down approaches.

22 **THE COURT:** What's the other one?

23 **MS. HURST:** The Kim model, which I already mentioned
24 in connection with Dr. Kearl, Your Honor.

25 **THE COURT:** Well, if you won on that, then they would

1 have nothing to stay. That would be a home run for you.

2 **MS. HURST:** Well, it happens when, you know, you don't
3 follow the rules, Your Honor. What can I tell you.

4 **THE COURT:** All right. Okay. What do we have on --
5 what else do we have on damages that we need to go over today?

6 **MS. ANDERSON:** I believe, Your Honor, there is a
7 portion of the motion on Mr. Malackowski that concerned the
8 subject of Oracle's theory of commingling. That is a big
9 aspect of that motion that I don't think was addressed in
10 argument yesterday that we would like to address.

11 **THE COURT:** All right. And does that relate to lost
12 profits or disgorgement?

13 **MS. ANDERSON:** It relates to the disgorgement.

14 **THE COURT:** Okay. I want to start with the Dr. Kim
15 part, and so I guess that will be Ms. Hurst.

16 **MS. HURST:** Your Honor, the Kim model is a -- an
17 econometric model, discrete choice model for smartphones based
18 on an unpublished dissertation written by a Ph.D. candidate
19 from the University of Minnesota.

20 **THE COURT:** How did anybody find out about it if it
21 wasn't published?

22 **MS. HURST:** Good question, Your Honor. The first time
23 we saw it was in Dr. Leonard's supporting materials.

24 **THE COURT:** Maybe you can find it on the Internet.

25 **MS. HURST:** Could be. Your Honor, actually that goes

1 right to the heart of the issue for us.

2 The data underlying this model that was used to construct
3 the model of demand that Dr. Leonard relied on was not
4 available to Dr. Leonard when he relied on this model and he
5 never got it after that.

6 And all of the key variables, statistical variables, are
7 not disclosed in the model. And Dr. Leonard sent an e-mail to
8 Dr. Kim and asked him for a whole bunch of stuff: *What's the*
9 *variable, sigma variable. I need all this data.*

10 I'll pass that up to you, Your Honor. And he didn't get
11 it. He didn't get that data. He got --

12 **THE COURT:** Repeat -- I think you just made an
13 important point, but I was about a sentence behind you. You
14 say that Dr. Leonard sent a letter to Dr. Kim -- is he a
15 doctor, too?

16 **MS. HURST:** She is. And she is in Korea, Your Honor,
17 so she is not subject to the subpoena power.

18 **THE COURT:** Saying *let me see your underlying data* and
19 she said no?

20 **MS. HURST:** She just never gave it, never responded,
21 as far as I can tell. We subpoenaed Edgeworth Economics, which
22 is Dr. Leonard's firm, for all the communications with Dr. Kim.
23 We saw that original e-mail asking for the sigma coefficient
24 and some data. Then a few more e-mails badgering her to give
25 him some stuff.

1 **THE COURT:** Show me some of those e-mails --

2 **MS. HURST:** You bet, Your Honor.

3 **THE COURT:** -- so I can understand what happened.

4 **MS. HURST:** Your Honor, I'm handing up documents Bates
5 marked Leonard 1 through Leonard 6.

6 **THE COURT:** All right.

7 **MS. HURST:** And, Your Honor, like all e-mail threads,
8 this is one of those deals where you read from the back to the
9 front.

10 **THE COURT:** It's a lot of e-mails here, so which one
11 do I start with?

12 **MS. HURST:** So, Your Honor, the one from Dr. Leonard
13 to Dr. Kim dated December 4th, 2015, which starts at the bottom
14 of page 3 of the printout. And Dr. Leonard writes and he
15 introduces himself. He says, "I've read your paper and we'd
16 like to know some information from you.

17 "First in Table 7, Column 5, you report the results of
18 Nested Logit model of smartphone demand. However, the estimate
19 of the nesting coefficient is not reported. Could you let us
20 know what the point estimate was?

21 "Second, it would be helpful to know the average values
22 over the last three months for which you had data of the
23 variables that appear in the smartphone demand model."

24 And he goes on to explain, "With this data, we should be
25 able to perform a simulation."

1 **THE COURT:** Okay.

2 **MS. HURST:** And then, Your Honor --

3 **THE COURT:** Why are both of you standing over there?

4 **MR. RAGLAND:** Well, Your Honor, I can address --

5 **THE COURT:** No. I want you to sit down, both of you,
6 and don't hover like a vulture waiting to interrupt. Give Ms.
7 Hurst an opportunity to make her point, and then I'm going to
8 call on you. I don't think it's right to just hover there
9 waiting to interrupt.

10 All right. Go ahead, Ms. Hurst.

11 Now I have lost my train of thought.

12 **MS. HURST:** All right. So, Your Honor, basically they
13 asked for two things. They asked for this coefficient and they
14 asked for the data from values over the last three months for
15 which you had data.

16 **THE COURT:** All right. So --

17 **MS. HURST:** So --

18 **THE COURT:** So then what?

19 **MS. HURST:** Then six days pass, Your Honor, and I --

20 **THE COURT:** Get in mind the date of this one.

21 **MS. HURST:** This was December 4, 2015. That's about a
22 month before the first round of expert reports.

23 **THE COURT:** So about five or six months ago?

24 **MS. HURST:** Yes.

25 **THE COURT:** So then we get someone named -- what is

1 that? Qian Lu.

2 **MS. HURST:** Yeah. Qian, maybe, Lu, and that's someone
3 at Dr. Leonard's shop who was copied on the original e-mail,
4 Edgeworth Economics.

5 **THE COURT:** Did Kim ever respond?

6 **MS. HURST:** No, not so far. So this is the follow-up
7 request, Your Honor. December 10, six days have passed.
8 "Sorry to bother you again. I'm sorry to interrupt you.
9 However, we are under a really tight time constraint. Give us
10 the coefficient. Could you also please give us your data for
11 the years 2010 and 2011. We are not going to replicate the
12 analysis. Just going to calculate counterfactual market shares
13 of the operating systems."

14 **THE COURT:** All right.

15 **MS. HURST:** And then again then on January the 8th,
16 "I'm sorry to bother you again. Could you please tell me this
17 coefficient. It's very important."

18 Now they've given up on the data demand, right? Now
19 they're just down to the coefficient.

20 **THE COURT:** We don't know that they've given up on it,
21 but they don't -- they don't refer to it.

22 **MS. HURST:** Agreed, Your Honor.

23 **THE COURT:** But this is January 8th.

24 **MS. HURST:** January 8th.

25 **THE COURT:** So Kim has not yet responded?

1 **MS. HURST:** Still no response. Finally here on
2 January 11th we see a response. She says --

3 **THE COURT:** Vacation.

4 **MS. HURST:** -- "Been on vacation. Don't have the
5 answer. Try to get back to you soon."

6 **THE COURT:** All right.

7 **MS. HURST:** That's the 11th. Again, a response
8 from --

9 **THE COURT:** All right.

10 **MS. HURST:** On Lu.

11 **THE COURT:** So then --

12 **MS. HURST:** "Give it to me."

13 **THE COURT:** When did Kim finally respond?

14 **MS. HURST:** Finally, Your Honor, the very -- the
15 e-mail of January 18th. That's the very last one. It's
16 actually duplicated here on this two-sided -- first two-sided
17 page.

18 January 18th, Dr. Kim finally responds and says, "The
19 point estimate for the within-share coefficient was .757," and
20 the measure of significance, Your Honor. "Hope it's not too
21 late."

22 **THE COURT:** All right. So it looks like she did give
23 information.

24 **MS. HURST:** She gave the sigma value, Your Honor. She
25 did not give the data. And there are two fundamental problems

1 related to this whole exchange. First, they don't have the
2 data that was used to construct this model, period.

3 **THE COURT:** Why is that so essential?

4 **MS. HURST:** Well, Your Honor, under Rule 703, an
5 expert may base an opinion on facts or data that has been made
6 aware to -- sorry -- that the expert has been made aware of or
7 personally observed. Now, that rule certainly relaxed the
8 standard so that an expert didn't have to have firsthand
9 knowledge anymore and could rely on hearsay.

10 But this goes a step beyond, Your Honor. A step beyond
11 hearsay to unknown. Completely unknown.

12 Now, the data, Your Honor, is used to construct --

13 **THE COURT:** What is -- give me the character of the
14 data.

15 **MS. HURST:** So, Your Honor, it's data about
16 applications in the marketplace on the two platforms, iOS, the
17 Apple smartphone and Google Android. What applications were in
18 the marketplace, which ones were popular, how many there were,
19 and how many -- how many phones were in the marketplace during
20 that period of time between those two platforms.

21 And she used a particular data set related to that
22 application data to construct a model about what consumers
23 would do if the number of applications changed. Would they --
24 would there be flight to the other platform. What would the
25 demand characteristic change if there were changes in the

1 underlying availability of applications. And that's what the
2 model does.

3 **THE COURT:** So the underlying data were the number of
4 apps on each platform and the market at various times. Then do
5 they also have market share data?

6 **MS. HURST:** Yes, Your Honor.

7 **THE COURT:** Market share data measured by what?

8 **MS. HURST:** We don't know.

9 **THE COURT:** That's not explained anywhere?

10 **MS. HURST:** No.

11 **THE COURT:** Market share data -- but what does it
12 purport to be? Market share data of Android phones versus iOS
13 phones?

14 **MS. HURST:** Correct.

15 **THE COURT:** All right. So then when Kim runs the
16 model, what does Kim conclude as published? Not published. As
17 in the thesis.

18 **MS. HURST:** So what Kim describes as the purpose of
19 her thesis is this, Your Honor:

20 "I examined how the contributing effects of mobile
21 applications on smartphone adoption differ across smartphone
22 operating systems and the extent to which this difference is
23 explained by the role of platforms focusing on the case of
24 Apple versus Google. I estimate a model of consumer demand for
25 both smartphones and compatible apps where I specify the

1 benefit provided by apps as the sum of individual app
2 utilities."

3 So basically what she did, Your Honor, she took a weighted
4 average of the top apps and then it was only the top ones, not
5 all of them which Professor Kearl criticized, and we'll get to
6 that in a minute, but we're just focusing on the data right
7 now. She says she used this data about app availability,
8 popularity, and market share to construct a choice model of
9 what people would do, what they would make the choice to go to
10 another platform based on app availability, based on a weighted
11 average popular availability. And that's her discrete choice
12 model.

13 **THE COURT:** All right. Presumably she decides that
14 the more apps you have, the more market share you have. Is
15 that what she decides?

16 **MS. HURST:** One would -- actually, that's not what she
17 decides. And that is Professor Kearl's principal criticism of
18 the fit of this model, even though he modified it to come up
19 with some values. One of his principal criticisms of the model
20 was it's not measuring the variety of apps, which is an
21 important factor in consumer choice. In other words, it
22 doesn't meet Oracle's theory of demand for platforms and why
23 the Java APIs were significant here because there was such a
24 large built-in base of developers.

25 All it measured was based on a weighted average value of

1 the popular apps, and so it doesn't actually fit the whole
2 issue here of getting a head start with the built-in base of
3 developers and applications, which was variety, Your Honor.

4 So that's one of the fit criticisms, but I want to just
5 focus, if I may, first on the 703 problem which is they didn't
6 have the data. And the significance of that, Your Honor, is
7 that they can't reconstruct and test the model. They can't
8 test whether it's even a valid expression of what Dr. Kim said
9 it was in her paper.

10 And I find it, Your Honor, troubling that they tried to
11 assure Dr. Kim that they would not recalculate, replicate the
12 analysis because that's like a signal to somebody about their
13 Ph.D. dissertation, *Don't worry, we're not going to -- we're*
14 *not going to tank your dissertation. We're not going to say*
15 *this is one of those cases of research fraud. We're not going*
16 *to replicate the analysis.* That's very troubling, Your Honor.
17 They relied on a model that they didn't have the data for.

18 **THE COURT:** But what is the model? If it's not -- I
19 mean, does it have a mathematical equation?

20 **MS. HURST:** It does, Your Honor.

21 **THE COURT:** Where can I find this --

22 **MS. HURST:** I'm going to hand up the paper,
23 Your Honor. I'm not even going to pretend to understand this
24 mathematical equation, because I don't. It's a very
25 complicated statistical --

1 **THE COURT:** Somebody is handing you a document behind
2 your back.

3 **MS. HURST:** Your Honor, this is the Kim thesis, *Essays*
4 *on the Economics of the Smartphone and Application Industry*.

5 **THE COURT:** All right. This is about 60 pages or so.
6 So what page do you want me to look at? Find the formula.

7 **MS. HURST:** Your Honor, page -- let's start on page
8 10. There is a couple of different formulas here.

9 **THE COURT:** Well, which is -- which is the formula
10 that Dr. Leonard --

11 **MS. HURST:** I want to make sure I get that right,
12 Your Honor. One moment. In Section 2.3. of the paper
13 beginning on page 34, Your Honor --

14 **THE COURT:** 34 says 2.3 model.

15 **MS. HURST:** Model. And then there is an app demand
16 formula in 2.3.2.

17 **THE COURT:** All right. Is that the formula that was
18 used by Dr. Leonard?

19 **MS. HURST:** And then, Your Honor, the computation
20 under the model, the formulas are provided on page 39.

21 **THE COURT:** I'm sorry. Please answer my question.

22 **MS. HURST:** I'm sorry, Your Honor.

23 **THE COURT:** Dr. Leonard surely found some formula in
24 here and used some equation and -- well, maybe more than one,
25 and used those equations.

1 **MS. HURST:** Page 39.

2 **THE COURT:** All right. 39. All right. So show me
3 the one that he used or the ones.

4 **MS. HURST:** I'm going to invite counsel for Google to
5 correct me if I'm wrong, but I believe it's these two formulas
6 on page 39, Your Honor.

7 **THE COURT:** 2.10 and 2.11?

8 **MS. HURST:** Yes.

9 **THE COURT:** Just answer that part of the question,
10 please. Is that correct?

11 **MR. RAGLAND:** Yes, Your Honor.

12 **THE COURT:** All right. Thank you.

13 **MR. COOPER:** Excuse me.

14 **THE COURT:** Yes, sir?

15 **MR. COOPER:** Would it be possible for us to see these
16 documents?

17 **THE COURT:** Yes.

18 **MS. HURST:** Oh, yes.

19 **THE COURT:** Dr. Kearl should have a copy. Thank you,
20 Mr. Cooper.

21 I want to just say again how much the Court admires and
22 respects and thanks Attorney Cooper for doing this work
23 pro bono. All these other lawyers are getting paid millions of
24 dollars and you're doing this for free. Even your client is
25 doing it for money, but you are doing it for free, and it's

1 been an extreme benefit to the Court to have you involved, so
2 thank you very much.

3 **MR. COOPER:** Thank you.

4 **THE COURT:** All right. 2.10, 2.11.

5 So what -- now, these are the equations that were used.
6 In the history of the universe, have these two equations ever
7 appeared in any other literature, other than what I'm looking
8 at?

9 **MS. HURST:** Your Honor, I don't believe so. I think
10 these were developed precisely using this paper, and that's
11 where they were created.

12 **THE COURT:** All right. So the one thing that we have
13 to be sensitive to is that these are not recognized in prior --
14 at least prior to the publication -- not publication, but prior
15 to this thesis, these had never seen the light of day and --

16 **MS. HURST:** And, Your Honor --

17 **THE COURT:** But maybe they're perfectly accurate
18 and -- but let's just look at -- 2.10 is a PR. I don't know
19 how to even read this into the record. I know what the sum
20 means. However --

21 **MS. HURST:** I don't --

22 **THE COURT:** I'm sure that the economist can look at
23 this and figure it out. So what's -- so continue on making
24 your criticism.

25 **MS. HURST:** Sure.

1 Your Honor, I don't want to misrepresent the state of
2 affairs here. This idea to create a discrete choice model for
3 smartphone demand comes from a larger body of economic
4 literature, including the original kind of progenitor of
5 discrete choice modeling Barry, and that stuff is well accepted
6 for certain purposes.

7 But this particular implementation of it with these
8 formulas derived from data that nobody has, as far as we
9 know -- has not been used for any purpose by anybody anywhere.
10 And most importantly, what not having the data means is, first
11 of all, you don't even know if this is right, Your Honor, and
12 as the folks at Edgeworth assured Dr. Kim, *Don't worry. We're*
13 *not going to try to replicate your analysis.*

14 And you can't --

15 **THE COURT:** Did she get her degree?

16 **MS. HURST:** I believe so.

17 **THE COURT:** So somebody at the school, University of
18 Minnesota, must have thought it was okay.

19 **MS. HURST:** As a Ph.D. thesis, absolutely. To
20 demonstrate her understanding of fundamental economic
21 principles related to discrete choice models, that seems like
22 it's probably true, Your Honor.

23 **THE COURT:** Has anyone else ever used this model
24 anywhere?

25 **MS. HURST:** Not that I'm aware of, Your Honor.

1 **THE COURT:** All right. So let me see if I can say
2 what your point is. Your point is she took preexisting
3 concepts in models, applied those to a data set that is
4 unknown, and resulted in this formula, 2.10 and 2.11. Is that
5 true, or am I missing something?

6 **MS. HURST:** Yes.

7 **THE COURT:** And your criticism is that we don't know
8 the data and therefore we cannot -- we cannot duplicate and
9 replicate the method by which she got her equation and
10 therefore we just have to accept her word for it?

11 **MS. HURST:** Yes, Your Honor. And it's not just
12 accepting her word for it on the data, but also the sigma value
13 that they did get with the e-mail exchange was a calculated
14 value that was not disclosed in the paper, and they got that
15 value, and then Dr. Leonard just relied on it without any
16 ability again to check that.

17 And so, Your Honor, what we have here is a situation where
18 Dr. Leonard is relying on things that are completely outside
19 the record of the case as a matter of fact for inputs to his
20 calculation. And there's no way to cross-examine this.
21 Dr. Kim's in Korea. She's not within the subpoena power. We
22 actually tried to send her an e-mail and see if she would send
23 us the data, and we didn't get a response. And so there is
24 nothing that we can do to cross-examine this, Your Honor. I
25 mean --

1 **THE COURT:** When did you send that e-mail? Show me
2 the e-mail.

3 **MS. HURST:** Your Honor, I'm handing the Court an
4 e-mail that we sent to Dr. Kim in March, and my colleague,
5 Andrew Kim, is also of Korean descent, Your Honor, so he sent
6 the e-mail in both Korean and English, hoping to gain Dr. Kim's
7 cooperation.

8 **THE COURT:** Where is he?

9 **MS. HURST:** He is here, Your Honor.

10 **THE COURT:** Okay. Thank you. All right.

11 So this is in Korean, and what's the date of this? March
12 21. So that's pretty recent.

13 **MS. HURST:** Yes, Your Honor.

14 Well, after Dr. Kearl also relied on it, Your Honor, and
15 made some of his points criticizing it, we thought we had
16 better try to speak with Dr. Kim. And so we sent her the paper
17 and we said, *Could we please have a brief phone call with you?*
18 *We would like to ask you some questions.* And we hoped to
19 convince her to please provide us the data. And unfortunately
20 we never got any response, Your Honor, and --

21 **THE COURT:** What does she do for a living? Is she,
22 for example, working for a company over there? Is she a
23 teacher in a university?

24 **MS. HURST:** Your Honor, she works at the Korea
25 Development Institute. Let me see if I can find out what that

1 is.

2 (Counsel confer off the record)

3 **MS. HURST:** It's a think tank, Your Honor.

4 **THE COURT:** All right. I need to let the other side
5 respond to what you've said so far. Just to this part that
6 I've heard so far.

7 **MS. ANDERSON:** Thank you, Your Honor.

8 **THE COURT:** And also Dr. Kearl, I'm going to ask you
9 for your input on this, too, after I hear from Ms. Anderson.

10 Okay. Ms. Anderson, what do you say to this?

11 **MS. ANDERSON:** Yes, Your Honor.

12 Well, there are a few points I would like to clarify and
13 expand upon that I think may be helpful to the Court to
14 understand.

15 First of all, the Kim model, the Kim study that we've been
16 talking about is a study that was prepared, that was not done
17 for litigation. It wasn't, as Your Honor has referred to,
18 ginned up for this litigation. It's an academic study that was
19 done to prepare a model to model something that is actually
20 quite relevant to this litigation.

21 That kind of econometric model or study is the classic
22 kind of material that experts who are econometricians often
23 will rely upon to assist them in preparing opinions in a case
24 like this.

25 Dr. Kearl, I believe, who is here, can confirm if that is

1 indeed the case, but I think he agrees with this point. This
2 is the kind of study and model that can be used and it can be
3 helpful, and I believe Dr. Kearl has explained that although
4 the formulas in this particular study to a person who is not an
5 econometrician may look complex, they intuitively make sense.
6 That's one point.

7 On the 703/702 argument, Your Honor, materials that are of
8 the type typically relied upon by experts in the field are
9 appropriate for reliance by an expert. So that's another
10 fundamental legal point that I think is important to know here.

11 Third, for purposes of the *Daubert* that Oracle filed
12 against Dr. Leonard, that *Daubert* motion didn't criticize the
13 particular formula here. It's important to note that to the
14 extent that counsel is suggesting that the formula are somehow
15 improper, that wasn't the subject of the motion. Instead, the
16 subject of the motion was, number one, Oracle was claiming that
17 this was an improper non-infringing alternative under their NIA
18 theory.

19 But, Your Honor, this is quite different. This particular
20 counterfactual scenario is a scenario in which Google assumed
21 and took on head on the assumptions basically that Oracle was
22 making, that somehow Google could not use the Java API labels,
23 declarations, and went forth and had a platform that had fewer
24 applications, and this model helps the econometrician assess
25 what would be the effect on market share.

1 So this does not fall into the bucket of the kind of
2 non-infringing alternative bucket that Oracle is seeking to
3 construct here for purposes of its argument.

4 **THE COURT:** Well, I do want to come to that point, but
5 help me understand, here we have somebody that no one ever
6 heard of before at the University of Minnesota and whose
7 formula has never been used anywhere, except in this one
8 thesis. And you don't have the underlying data to be able to
9 replicate it. So is it really true that experts will rely upon
10 something that unknown?

11 **MS. ANDERSON:** Indeed, Your Honor, for scientific
12 experts -- and we're talking about a science, econometrics
13 here, typical in other fields as well -- scientists do studies
14 and publish their results all the time to add to the body of
15 academic literature in an area that is the kind that is
16 reliable and used by experts all the time.

17 Now, the fact that studies that are relied upon by experts
18 on all sides, sometimes you don't have the underlying data in
19 the published -- in the publication, that's not unusual at all.
20 And I think it's interesting to note that I believe
21 Dr. Leonard's original report was served on Oracle in February.
22 This request that was made by Oracle to Dr. Kim, to the extent
23 they felt it was very important, didn't issue until the third
24 week of March. So if this was something that Oracle viewed as
25 incredibly critical, that's something they certainly waited a

1 while to address.

2 I also think it's important to note here, Your Honor, that
3 to the extent that Oracle quibbles with the outcome and the
4 model used by -- in the Kim thesis, this is something that
5 their responsive expert can then tweak the model in a way that
6 they think is appropriate. For example, Dr. Kearl made
7 modifications to what he believed Dr. Leonard had done
8 improperly to make it be a model that he felt was more
9 appropriate, and that's something that experts do all the time.

10 Oracle instead refused to do anything here which is,
11 frankly, consistent with their approach in this case because
12 Oracle wants to take the position that there's simply nothing
13 that can be done here on the apportionment front other than
14 give Oracle everything.

15 So I think it's important here to note this is kind of
16 traditional material that's used by experts. Oftentimes
17 studies are relied upon by experts as evidence for what they
18 are doing to support their opinions, as long as it's the kind
19 that is typically relied on by experts in the field. This is
20 that kind of thing. So I think those are important points to
21 note.

22 And this exchange about the sigma coefficient that counsel
23 handed up is a real red herring because this coefficient that
24 Oracle is claiming somehow they didn't get their hands on was
25 part of Dr. Leonard's report. All this exchange did was

1 confirm what he relied upon.

2 So I think that for purposes of this motion, the
3 fundamental question is is this the kind of material that
4 experts in this field typically rely upon. Clearly yes. I
5 believe, although Dr. Kearl can confirm, that that is the case,
6 and indeed Dr. Leonard sets out in his report, starting at page
7 89 and going on for a few pages, what he did, and what he did
8 was he took the Kim model, which is an empirical model of
9 smartphone demand, and he made some conclusions and applied a
10 paper called the Barry paper from 1994, which is, my
11 understanding is, in that field very well-known to
12 econometricians, and I believe that even Oracle's experts
13 admitted that during deposition.

14 So --

15 **THE COURT:** So Dr. Leonard applies the Kim model, and
16 what is his conclusion from applying the Kim model?

17 **MS. ANDERSON:** Well, what he does is -- there are two
18 pieces here that I think are helpful to know. First of all,
19 the conclusion of this paper, which is set forth on page 45 of
20 the Kim paper, the author notes that after applying this -- the
21 model and conducting the experiment, the conclusion was, "After
22 controlling for user selection, the result suggests Apple
23 provided more app benefits to the users and Android's stronger
24 sales entirely came from advantages in the price-adjusted
25 quality of hardware. Apple kept advantages in the app benefits

1 up mostly due to the higher app platform quality. These
2 results show some evidences on the benefits and costs of open
3 versus closed strategies in platform markets."

4 And what the author is basically finding is that, you
5 know, there is a relationship and she was studying what is the
6 relationship between availability of apps and consumer demand
7 and how that affects market share, and what Dr. Leonard did is
8 he said okay, let's assume that what Oracle says is true and if
9 Google didn't use those API declarations, they -- they wouldn't
10 have enjoyed sufficient market share because they would have
11 had less apps. What really would have been the effect? So he
12 applies this model, after having taken into account the
13 principles of the Barry paper, and he finds that -- he finds
14 what that effect would be from having less apps.

15 **THE COURT:** What is the effect?

16 **MS. ANDERSON:** Yes. So his total number is
17 approximately 200 million and -- let me just pull out some
18 details for the Court.

19 So the total number he finds is 200 million, and as
20 Dr. Kearl has explained, this is something that Dr. Kearl used
21 as well, although he modified it in other ways.

22 **THE COURT:** When he modified it, what did Dr. Kearl
23 come up with as a number?

24 **MS. ANDERSON:** He came up with a higher number by
25 making certain factual assumptions, and I believe his range was

1 between two and three-and-a-half billion. And that is --
2 that's -- that's the aspect -- one of the aspects of the Kearl
3 opinion we challenge because we challenge, among other things,
4 the assumptions that are built into the modifications that were
5 made by Dr. Kearl.

6 **THE COURT:** Your assumption is that it's a --
7 something about C++; right? That Android was written in C+?
8 Tell me what your assumption is.

9 **MS. ANDERSON:** Well, for purposes of this particular
10 model -- and, remember, there are a few different
11 counterfactuals. One of the counterfactuals would involve use
12 of a -- sort of a different language. But for purposes of this
13 counterfactual, Dr. Leonard assumes that -- simply that this
14 platform did not use the API declarations in question and had
15 an effect on the number of apps available. And that's the
16 fundamental assumption to this model. There were less apps
17 available.

18 **THE COURT:** How many less?

19 **MS. ANDERSON:** We can get that for you. It's part of
20 the modeling process, so we can provide that for Your Honor.
21 We'll get you a specific cite.

22 **THE COURT:** Well, if it would mean there would be
23 almost no apps, then I could imagine there would be a huge
24 impact. If there were almost as many apps, I would imagine it
25 would be a small impact. So what that assumption would be

1 would be pretty important.

2 **MS. ANDERSON:** Right. There is certainly no
3 assumption. There were no apps. I think what's an important
4 takeaway of the evidence in the case, is that --

5 **THE COURT:** Can you get that information for me?

6 **MS. ANDERSON:** We will.

7 **THE COURT:** Let's get -- doesn't somebody back there
8 know it immediately? Does Dr. Kearl know the answer to what
9 I'm asking? What the assumption was that Dr. Leonard used
10 on --

11 **DR. KEARL:** It's two percent.

12 **THE COURT:** Come up here, Dr. Kearl, please.

13 The Google team does not know the answer. Do you know the
14 answer to what Google's own expert said was the number of apps,
15 what was the change in number of apps that would be
16 available --

17 **DR. KEARL:** It's about two percent.

18 **THE COURT:** That's the bottom line; right? Do you
19 mean two percent -- instead of one hundred apps, there were
20 just two apps? Is that what you mean?

21 **DR. KEARL:** No. There are -- he has some inclusion
22 criteria that says in the but-for world, the following apps
23 would be left in. He starts out with about 3200 apps. These
24 are the top 100 apps in any month, but over a period of time,
25 there is about 3200 of them. And his screen eliminates about

1 two percent of those.

2 **THE COURT:** Two percent?

3 **DR. KEARL:** Yes.

4 **THE COURT:** You mean he is assuming that 98 percent of
5 the apps that did in fact exist would still exist using some
6 other platform, some other version of Android?

7 **DR. KEARL:** It's slightly more complex than this,
8 Your Honor, because the apps are weighted by how often they're
9 downloaded. So an app that is downloaded a million times has
10 more weight in this analysis than the one that is downloaded a
11 hundred thousand times. So it's a bit more complex.

12 **THE COURT:** All right.

13 **DR. KEARL:** Loosely, it's reduction of the apps.

14 **THE COURT:** Just on this one point, is that a point
15 that you criticize or a point that you agree with?

16 **DR. KEARL:** That's a point that I criticize.

17 **THE COURT:** What is your criticism?

18 **DR. KEARL:** Well, he sets forth the -- these five
19 criteria for apps that would still exist even if Android didn't
20 have the 37 APIs, and I originally said okay, let's test the
21 sensitivity for each of these exclusion criteria. So let's go
22 from 5 to 4, 4 to 3, and so on, and see what happens to the
23 predictions from his model.

24 If you go from 5 to 4, you get almost no change at all;
25 that is, the exclusion 5 apparently doesn't really pick up

1 anything. But if you go from 4 to 3 to 2, you get a fairly
2 large change. And let me clarify, the range of estimates is
3 not 2.2 to 3.5. It's 3.5. That is, I used the Kim model only
4 for one purpose and that is for deriving that number, and if
5 you sort of reduce his criteria in a way that I think is
6 sensible or at least the jury could hear and decide, then his
7 model produces damages of 3.5 billion, his approach.

8 **THE COURT:** All right. But what is the way you
9 adjusted it?

10 **DR. KEARL:** I simply took the exclusion criteria that
11 he had and said -- it's just code. It says if an app falls in
12 the following -- if an app has the following characteristic, it
13 falls in this bucket, so he has these five buckets. I said
14 okay, let's take out the fifth bucket and assume that app would
15 not exist in the but-for world, those set of apps. What's the
16 result? Let's ask what would happen to his results if you took
17 out the fifth and fourth bucket. He created the buckets. And
18 I just tested whether or not his results were sensitive to his
19 exclusion criteria or inclusion criteria, so it was what would
20 have been in the but-for world.

21 **THE COURT:** And so you took out one bucket?

22 **DR. KEARL:** Yes. One at a time.

23 **THE COURT:** All right. If you take out one bucket,
24 what --

25 **DR. KEARL:** If you take out one bucket, you get almost

1 no effect. Apparently that inclusion criteria really doesn't
2 pick up any apps. You essentially get the same result he gets.
3 So that one didn't have any bite to it. There wasn't anything
4 in that bucket really.

5 If you start further going down, then there's bite in the
6 and the numbers change.

7 **THE COURT:** Let's say you take out two buckets, do you
8 remember what the answer is?

9 **DR. KEARL:** I don't know the answer to that. I think
10 if you take out 2 and 3 is what you get, so you leave two
11 things in. Then you get 3.3 million -- billion.

12 **THE COURT:** So I understand these buckets, let's say
13 you take out 1, 2, and 3. Is that the way it works? 1, 2 and
14 3?

15 **DR. KEARL:** Yeah. Actually, they are numbered the
16 other way. If you take 5, 4 and 3 out, you leave 1 and 2 in,
17 that's when you get the 3.5 --

18 **THE COURT:** You're making it sound like -- maybe you
19 don't mean to. I'm trying to find out -- that 1, 2 and 3 would
20 be 60 percent of all apps?

21 **DR. KEARL:** Again, it's not quite that because they're
22 weighted. It's a weighted average, so what comes out is apps
23 weighted by how many times they're downloaded that have a
24 certain criteria. But there are only 3200 apps here.
25 Ms. Hurst is correct.

1 One of my criticisms is it doesn't quite address Oracle's
2 claim that it needed lots of apps in the critical period. What
3 it does do is to ask in 2010 through 2012, now that we know
4 that both Android is successful and that there are successful
5 apps, let's look at the effect of those successful apps on
6 Android or on consumer choices of Android versus --

7 **THE COURT:** I'm going to ask -- do you have another
8 point you want to make on this?

9 **DR. KEARL:** Do you want me to clarify a couple of
10 other --

11 **THE COURT:** Yes, please. Go ahead. Make all the
12 points that you have that relate to anything that I've already
13 heard.

14 **MR. COOPER:** Your Honor, I would like to know that the
15 issue of econometrics came up this morning and Dr. Kearl is an
16 econometrician.

17 **THE COURT:** All right.

18 **DR. KEARL:** Again, I do not want to appear
19 argumentative. I'm simply here to help the Court.

20 But Ms. Hurst pointed to equations 2.10 and 2.11. These
21 are standard, and they're not actually what Kim estimated. In
22 these discrete choice models, you have individuals making a
23 choice, either they buy an iPhone or they buy an Android phone
24 or they buy a BlackBerry phone and you know those choices and
25 you know some characteristic of the individuals and you can

1 estimate -- in these discrete choice models, what you really
2 estimate is the probability of somebody with certain
3 characteristics choosing one phone or the other.

4 So these are the equations that describe the
5 probabilities, and this is standard in discrete choice models
6 and comes right out of the literature. Kim did not do anything
7 there.

8 **THE COURT:** Well --

9 **DR. KEARL:** The equation that she actually estimates
10 is 2.8.

11 **THE COURT:** Where is that one?

12 **DR. KEARL:** And this is her -- she goes through a
13 bunch of math, and this is how she characterizes this choice.
14 It's on the bottom of page 37. And she estimates what she
15 calls an auxillary equation 2.9 on page 38. So the parameter
16 estimates in her model come from these two equations. The --
17 and -- well --

18 **THE COURT:** Tell me this. You heard Ms. Hurst's
19 criticism that we don't have the data; right? So what is, in
20 your mind, the significance of us not being able to go behind
21 the equations and get at the data?

22 **DR. KEARL:** Let me answer it in two ways. As a
23 general response, economists use coefficients from
24 well-estimated models all the time without estimating the
25 models. This model is a little unusual in that she constructs

1 the data. It's not a set of observations, but she actually
2 does some things with some data to construct the data that she
3 uses, and that would be a little unusual.

4 And, two, the second one was a critical parameter that
5 Dr. Leonard had to get from her, was not in her dissertation,
6 which is a little surprising, given that it's an important
7 parameter in the model. Why, I have no idea, but it's not
8 there.

9 That would lead me to say it would be helpful if an expert
10 could see how she constructed the data and see how sensitive
11 her parameter estimates are because sometimes you can give
12 parameter estimates that are sort of knife edge. If you move a
13 little ways away, you get a very different estimate. Sometimes
14 you get parameter estimates that are pretty flat so if you move
15 a ways away, you're going to get pretty much the same estimate.

16 Given that she constructed the data and given that she
17 didn't publish with this all of the parameters, I raise
18 questions about that. I don't know that they raise -- rise to
19 the level of *Daubert* as opposed to cross-examination questions,
20 but I -- it is -- it's a little odd in that regard.

21 But to go on quickly, Dr. Leonard takes this then and
22 takes a very well-established procedure for using these kinds
23 of models to go from -- what these models estimate is the
24 probability of making a choice. And that depends upon the
25 utility. People who have a high utility have a higher

1 probability of choosing an iPhone, for example.

2 Sorry. This is a bit disconnected. One other thing.
3 Ms. Hurst was not quite right. This is not just iPhones and
4 Android phones. It's iPhones, Android phones, and other
5 things. So there are other choices that individuals could
6 make, including simply buying nothing, but BlackBerry, for
7 example, is in the other category. So it's a broader set of
8 options than simply Android and -- anyway.

9 They make the -- they can -- you estimate the probability
10 based on the utility they get from whatever characteristics the
11 phone has. And then in a very important paper of 15 years ago,
12 I suppose, 20 years ago, there is a way of turning those
13 probabilities into market shares. That's what Dr. Leonard did;
14 that is, he imported that paper, used it with this paper, and
15 then takes the Kim model, its results, to then predict what
16 would happen to market shares.

17 He then monetizes the change in the market share. So if
18 the market share fell by ten percent, he would say this would
19 mean that Google would lose the following amount of profits.
20 That's his approach and it's my approach when I use his model.

21 **THE COURT:** So you've told us your qualified criticism
22 on the data point. So let's assume that the model in the
23 Dr. Kim thesis is correct for a moment. Well, maybe I
24 shouldn't assume that yet.

25 Is the Dr. Kim model something of the type and character

1 that an expert in your field would rely upon?

2 **DR. KEARL:** Yes.

3 **THE COURT:** All right. Even though you don't have the
4 data to test it out? Or do you say --

5 **DR. KEARL:** Let me be more careful then because I may
6 have answered without understanding the question.

7 Is the Dr. Kim approach, her sort of abstract mathematical
8 model and the way she sets this up, is this something that an
9 economist would rely upon? The answer is yes.

10 Is Dr. Kim's implementation of her model, that is, going
11 from a model to actually estimated parameters where she did two
12 things, she constructed some data and she then does the
13 econometrics of estimating the parameters, is that something
14 you would rely on, and I would hope you would be able to test
15 the sensitivity of her work to both the data she constructed
16 and to slightly different specifications. That would be
17 standard. So the inability to do that I think is a drawback in
18 relying on the actual empirical work that comes out of her
19 work.

20 **THE COURT:** All right. Next question. Assuming that
21 the -- that you could rely upon it, what are your criticisms,
22 if any, of the way Dr. Leonard has applied it? You've already
23 given me one, which I didn't fully understand, but it's
24 something -- the first, second and third buckets; right? You
25 told me that. So give me your criticisms, if any, on the way

1 in which Dr. Leonard applied --

2 **DR. KEARL:** There are three criticisms. One, about
3 what he actually did and then two additional ones. Let me
4 reprise the one he actually did, which is he says we have these
5 apps. Let's decide which apps would be in the but-for world if
6 Android didn't have the 37 Java APIs, and he has selection
7 criteria to decide sort of which -- which go -- which would not
8 be in the world and which would be. And his selection
9 criteria, he has five criteria, and as I said, this sort of
10 puts these apps, this universe of about 3200 apps, into
11 different buckets. There is actually an implied sixth bucket.
12 There is the five buckets he pulled things in and then the
13 sixth bucket is what would not exist in the but-for world. I
14 tested those, as I've said. I don't need to repeat that.

15 The second thing is that these are the most popular apps
16 once Android is successful in 2000 -- and in 2010. This
17 doesn't address, I think, part of Oracle's claim -- they'll
18 have to make it -- that it was the ability to have lots of apps
19 being written, and you could think of this as a race in which
20 one way of characterizing Oracle's view is you got to have a
21 hundred thousand writers or a million writers in order to get
22 the successful apps that make Android successful.

23 So it's the -- you're looking at it ahead of time and
24 saying what's necessary to get the winners, and you can think
25 of Dr. Leonard essentially as saying we know what the winners

1 are and that's all we need. We didn't need this other.

2 The other criticism --

3 **THE COURT:** He used 1200 popular apps, is that it?

4 **DR. KEARL:** It's about 3200. It's the top 100 apps
5 downloaded, I think, in any month and these are overlapping
6 groups, so it totals to about 3200.

7 **THE COURT:** All right. That time period was when?

8 **DR. KEARL:** What?

9 **THE COURT:** The time period for those downloads was
10 recent?

11 **DR. KEARL:** He is doing it recently, yes. The Kim
12 model has estimated -- well, he is using the apps she uses so
13 it would have been in that period of time.

14 **THE COURT:** I thought we didn't know what apps she
15 used.

16 **DR. KEARL:** What?

17 **THE COURT:** I thought we did not know what apps she
18 used. That was part of the data that's missing.

19 **DR. KEARL:** Just a second. I'm not sure about the
20 answer to that question.

21 **THE COURT:** Let's pass it. Don't say anything if you
22 don't know. All right.

23 So continue on with your criticism.

24 **DR. KEARL:** The third criticism is that you can have
25 apps that are very popular to a small number of people but

1 would never make it on the list of the 3200. I give in my
2 report an example of if you're a back-country skier in Utah,
3 you want to know if there is avalanche danger, there is an app.
4 You can go on the app and the app will tell you whether or not
5 there is avalanche danger. That is widely used by back-country
6 skiers, but it is obviously not used by anybody in
7 San Francisco.

8 So the popular apps here are the globally-popular apps as
9 opposed to the really important apps to people in
10 different locals. If you want more examples, I-15, which is
11 the highway from Salt Lake City to where I live in Provo, is
12 the only interstate going south. It is sometimes crowded
13 during rush hour. You can get on an app provided by the
14 Department of Transportation of Utah, and it will tell you
15 where all the slowdowns are on this highway. I think everybody
16 that gets on this road to commute south pulls up that app and
17 says, *Is there a wreck someplace 20 miles south of me?*

18 That would not appear in Kim's analysis and it would not
19 appear in Leonard's analysis. And it's my understanding --
20 again, I'm not trying to make Oracle's argument. It's my
21 understanding that the argument that they want is that there is
22 a larger number of apps that mattered a lot, not just this
23 ex post successful set of apps, and in that sense, the Kim
24 model doesn't address the question.

25 **THE COURT:** Okay. You have a seat. Thank you.

1 Ms. Anderson, I'm going to let you go next, and you can
2 respond to everything and anything you just heard.

3 **MS. ANDERSON:** Yes, Your Honor. Because some of these
4 arguments overlap between the Kearl motion, Mr. Ragland will
5 address.

6 **MR. RAGLAND:** There are a few issues. There are three
7 issues we have with Dr. Kearl's adaptation of Leonard's
8 application of the Kim model. One is a preliminary and
9 overreaching one, which is the assumption that behind
10 Dr. Leonard's counterfactual analysis is that apps are
11 important to user acceptance of a platform. You need a lot of
12 apps for someone to move to the Android platform.

13 Dr. Leonard accepts that for the counterfactual to test
14 Oracle's theory, but he emphasizes and the evidence in the
15 record is that apps follow users. The facts -- the fact is
16 that when Android launched in 2008, it had 13 apps available
17 and app development was very slow. And this is all laid out in
18 Dr. Leonard's report and in the evidence cited there.

19 It wasn't until late 2009 when the Motorola Droid phone
20 and some other very popular phones came to the market that
21 consumers moved to Android and app developers followed
22 consumers. And so that's a fundamental issue we have, which is
23 there is not any evidence in the record that actually Oracle's
24 theory that apps are important to platform adoption is correct.
25 In fact, all of the evidence --

1 **THE COURT:** But wasn't that what Google's own memo
2 said at the time?

3 **MR. RAGLAND:** Early on, those are all speculation.
4 They said, *This is important. It will help get us developers.*
5 After Android launched, the facts are that they had difficulty
6 getting app developers and getting apps on the platform, and it
7 wasn't until --

8 **THE COURT:** Just to be blunt about this, what it
9 sounds like you're saying is Google invested millions of
10 dollars in development on a theory that you're now disavowing
11 and saying was incorrect.

12 **MR. RAGLAND:** Well, not really, Your Honor, because
13 what Google invested also was the Open Handset Alliance and
14 coordination with the phone makers, Motorola, HTC, the Open
15 Source platform, the whole theory behind Android, which has
16 nothing to do with the Java APIs, which is that if we have an
17 Open Source platform with a web kit that renders web pages
18 correctly, that does all these other things, that will then
19 grow the market, and that proved to be correct.

20 There are some isolated documents, Your Honor, that Oracle
21 makes much of where early on Google is saying, *Yeah, we need*
22 *apps.* In reality, they had trouble catching up with iPhone on
23 apps until the users came to the Android platform, and they
24 came to the platform for a number of reasons, myriad of
25 reasons, that had nothing to do with app availability.

1 So that's a fundamental issue that I think is very
2 important because we submit that in order to say what a
3 counterfactual world would be, that to sponsor that, there
4 needs to be a factual basis of that theory that's correct and
5 we don't think that's here. So that's one.

6 The second issue we have, Your Honor, with Dr. Kearl's
7 tweaks of Leonard's implementation of this counterfactual is
8 that what Dr. Leonard did is he looked at the literature, and
9 this includes a paper by Bresnahan, which we cite. It includes
10 also other literature that shows what's important to users are
11 a few of the killer apps, and of course that makes sense.
12 Facebook you want to have. Bank of America, you may want to do
13 your banking. Skype, the Google apps, maps, those sorts of
14 things. Those are important. Users may decide, *At this point*
15 *in time, I'm not going to get the X phone because it doesn't*
16 *have Google Maps and I want to be able to know where I'm going,*
17 *so I'll get either iPhone or Android or the Microsoft phone or*
18 one of the others.

19 So in eliminating that, in testing the importance in how
20 many apps would really be eliminated, Dr. Leonard said we have
21 to make these reasonable economic assumptions. One, companies
22 like Facebook, Bank of America, Wal-Mart, those apps would be
23 on the platform regardless, and in fact, the Microsoft phone,
24 which has a 1.6 percent market share, has all of those apps.

25 So excluding those, from the Kim model, as Dr. Kearl did,

1 a number of them, just doesn't haven't a factual basis.

2 Second, we have to make sure that the apps that are
3 dual-honed, where someone writes for both iPhone, Android or
4 Microsoft phone, Android and Apple, that those will also be
5 part of this because there's not a great cost importing to a
6 different platform and those would more reasonably be
7 available. And so those need to be included.

8 And the other key thing, most games on the Android, most
9 apps on Android that are games are written in C++ so we need to
10 include the non-Java language apps that would be there
11 regardless of the APIs, and that is the games, which is the
12 C++. There is a bunch of other ones. The Native Development
13 Kit, those need to be included.

14 So our criticism of Dr. Kearl is he went through and
15 eliminated sort of without analyzing each individual app that
16 is being eliminated and eliminated apps like Facebook and Skype
17 and games that there is no support to eliminate those. And so
18 that -- that's --

19 **THE COURT:** So Facebook is written in which language?

20 **MR. RAGLAND:** I don't know offhand what Facebook is
21 written in, but the point is that a company like Facebook is
22 going to write in whatever language it needs to to get the
23 users and is on Android phone, it's on iPhone, it's on
24 Microsoft phone, even though it has a less than two percent
25 market share. They are going to develop that in order to get

1 the users.

2 **THE COURT:** What language does your alternative model
3 assume that -- if it's not using Java, what is it using?

4 **MR. RAGLAND:** Well, for one, it's C++ for a number of
5 those. Those have to be included and a number --

6 **THE COURT:** So C++ is -- every app would be written in
7 C++ or just the games?

8 **MR. RAGLAND:** Well, actually, Your Honor, what I'm
9 saying is that in Dr. Kearl's tweak of the Leonard analysis, he
10 eliminated a broad swath of apps. Many of those that were
11 eliminated were C++ games.

12 We believe that those should not have been eliminated,
13 that there is no basis to eliminate those because they're not
14 in the Java language.

15 He also eliminated, Your Honor, a whole swath of apps that
16 are written by companies like Bank of America and Facebook. We
17 criticize that because we think there is no factual basis to
18 believe, and in fact the facts are contrary, that Bank of
19 America and Facebook won't make their app available on any
20 platform, you know, that exists.

21 And so that's we're saying is that our criticism of
22 Dr. Kearl's tweak of the Kim model is that it wasn't picking
23 the specific apps for a factual basis for them not to be there.

24 **THE COURT:** All right. But to answer my question, in
25 your use of the Kim model or Dr. Leonard's use of it, what

1 language is he assuming --

2 **MR. RAGLAND:** Certainly.

3 **THE COURT:** So is he is assuming it's something other
4 than Java?

5 **MR. RAGLAND:** He assumes there are going to be five
6 categories of apps that will exist, regardless of whether or
7 not the APIs are part of the Android stack. Those are Google
8 apps, apps written by Google: Google Maps, Google Search,
9 Gmail, things like that. That's one. C++ apps, all apps
10 written in the C++ language, which happen to be most games,
11 which are very popular. Dual home apps. Those are apps that
12 are also written for the iOS in Objective-C language, which is
13 more difficult programming language. I assume those are there.
14 There is good reason to assume they'd be there because if
15 you're a developer and you're looking at platforms and they
16 each have consumer adoption, which is what really happened,
17 okay, I'll write for that because Android now has a million
18 consumers, I can make some money. So that's the third.

19 The fourth is dual home company apps, and these are apps
20 that were written for Android by a company that also writes for
21 iOS. So you have a company that has the expertise to write in
22 multiple languages. Eliminating those doesn't make sense from
23 the model.

24 And then finally, it's the dual language company apps, and
25 I believe this is the category that Dr. Kearl said had no real

1 impact on eliminating, and those are apps that are written for
2 Android but by a company that writes other apps using the
3 Native Development Kit.

4 So there is a basis in the literature, and this is studies
5 by Bresnahan and others, about user choice on apps and what
6 apps are important, and that is the -- Dr. Leonard applied
7 those to say in this counterfactual, we can't just assume that
8 a whole swath of apps won't be available because we know, one,
9 consumers only care about ten apps. If anyone here thinks
10 what's on their phone right now, you know, it's just a number
11 of apps, a limited number of apps, and there is literature to
12 support that.

13 One other issue, Your Honor, that I'll mention is
14 Dr. Kearl mentions the importance of this app for, you know, an
15 app that only some users might care about, but they care a lot
16 about it. Our issue with that tweak, Your Honor, is that the
17 literature -- and this is actually the Bresnahan study which
18 we -- which Dr. Leonard cites -- states that the presence or
19 absence of those -- those specialized apps, those have no
20 statistical significance. There is no evidence -- in fact, the
21 evidence is contrary -- that any user goes out and decides
22 between Android, iPhone, Microsoft based on some app they may
23 not even know exists or they want to avoid avalanches. Even if
24 there is a hundred people that do that, that has no statistical
25 significance, and so it should be it's not a valid criticism,

1 and there is no literature to support the idea that users who
2 have a very specialized desire for an app, that they drive
3 platform choice in any way that matters from an economics
4 perspective.

5 And so, Your Honor, those are our issues with Dr. Kearl's
6 tweak of Leonard's counterfactual using the Kim model that we
7 just believe don't have a basis in the record that is
8 sufficient to be supported.

9 **THE COURT:** All right.

10 Ms. Hurst, I will give you rebuttal time and then we are
11 going to take a break.

12 **MS. HURST:** Thank you, Your Honor.

13 I apologize if I got the formula wrong, Your Honor. It
14 was entirely inadvertent. There is a lot of formulas in here.

15 **THE COURT:** Well, you do need to know what you're
16 talking about. And I know it's tough, but you had me going
17 down the wrong page and everything, so --

18 **MS. HURST:** I apologize, Your Honor.

19 Your Honor, I don't think this is inconsistent in any way
20 with what Dr. Kearl -- how Dr. Kearl answered the Court's
21 questions, but here are some of the things that Dr. Kearl said
22 about this in his briefs and at deposition.

23 In Dr. Kearl's response to the motions in limine, the ECF
24 1601-3 at pages 10 to 11, Dr. Kearl said, "Whether
25 Dr. Leonard's reliance on an econometric model that he did

1 estimate and that neither he nor any expert in this case can
2 test is, at the *Daubert* threshold, a matter for the Court."

3 **THE COURT:** That's what he said this time, too.

4 **MS. HURST:** And I just want to -- I think so too,
5 Your Honor.

6 Dr. Kearl also said -- same document, page 9 --
7 "Dr. Leonard does not appear to have investigated the stability
8 of the Kim parameter estimates across time, and he provides no
9 evidence suggesting that the response of consumers would be
10 similar in the earlier period to what Dr. Kim estimated it to
11 be in the later period."

12 And, Your Honor, this goes to one of our fit points, but I
13 just want to finish on the data point before I go to fit.

14 Your Honor, at the deposition, Dr. Kearl also said at page
15 125, lines 21, through page 126, line 3, "Again, the more
16 preferred way to do this would have been to actually have had
17 the Kim data and the Kim model and sort of understand sort of
18 what she did and been able to replicate and test the model
19 there. So I'm limited in what I can say to the jury in this
20 case because all I know are the two parameters that he just
21 specifies the number for."

22 Your Honor, Rule 703 relaxed the standards of what an
23 expert can rely on to hearsay, but it did not relax it to the
24 unknown. We cannot cross-examine this model. The data is
25 beyond the subpoena power of the Court. And, Your Honor, I'll

1 add one just one global final point.

2 Dr. Leonard admitted in his deposition that this model is
3 a non-infringing alternative. At page -- this is his fourth
4 bottom-up calculation. I asked him at page 58 of his
5 deposition:

6 "Your first four unjust enrichment calculations involve
7 some consideration of the availability of a non-infringing
8 alternative and your last two do not. Is that your answer?

9 "The Witness: In terms of the way it is going about it,
10 yes."

11 So we have a model that cannot be tested, the data is not
12 available. It may be based on general theories in the
13 literature that are accepted, but this implementation has not
14 been accepted. It was not created for litigation purposes
15 under the rules of reliability that apply to court cases, and,
16 Your Honor, it is a non-infringing alternative, which is
17 inconsistent with the purposes of the Copyright Act.

18 Your Honor --

19 **THE COURT:** Well, but for purposes of your lost
20 profits -- see, for disgorgement, maybe I agree with you, but
21 for purposes of lost profits since you're trying to have it
22 both ways, you want both of them, maybe you're wrong on that
23 piece of it. You think about that.

24 **MS. HURST:** I will, Your Honor. I'm not sure they
25 offered this in response to lost profits. I'll check that.

1 And, Your Honor, there are a number of fit criticisms.
2 The Court said it wanted to take a break. Maybe I should stop
3 there or should I --

4 **THE COURT:** We got to move on to something new. Tell
5 me how much more we have -- can we just end on Kim now?

6 **MS. HURST:** Your Honor, I'm going to say two points
7 and then I'll be done.

8 **THE COURT:** All right.

9 **MS. HURST:** First, Your Honor, it uses the wrong time
10 frame. The data that's disclosed for the period of time that
11 is disclosed in the paper that Dr. Kim relied upon was February
12 2010 to December 2011. That is a -- two-thirds of that period
13 of time is after, in Eric Schmidt's, the CEO of Google, view,
14 Android had already reached escape velocity.

15 **THE COURT:** I didn't understand what you mean.
16 Two-thirds -- say that --

17 **MS. HURST:** Two-thirds of the data -- two-thirds of
18 the time period used to construct the model was after Android
19 had already reached its critical mass in the marketplace. And
20 so that data isn't measuring sensitivity for a brand new
21 platform that is still struggling to gain acceptance. It's
22 measuring sensitivity for a platform that already got a
23 sufficient foothold in the marketplace.

24 And a related point, Your Honor, is that it's measuring
25 data that is affected by the infringement. And so it's not a

1 true counterfactual. It's not a true but-for world at all.

2 And so, Your Honor, there are other fit points, but -- and
3 they're in the papers and I'll rest on those. I'm just going
4 to say those two one more time.

5 The data used to construct this model in substantial part
6 is after Android had already reached its success point in the
7 marketplace. And, Your Honor --

8 **THE COURT:** Why is that so critical? If it's a
9 generalized formula, that still might be -- I don't get that --
10 I don't see why that is fatal.

11 **MS. HURST:** Well, it's not a generalized formula.
12 It's a specific implementation based on that market data, and
13 so, Your Honor, it's supposed to be testing the success of the
14 platform, choices that consumers would make, relative to app
15 availability, but that's a period of time in which they were
16 already succeeding and it's hard for us all to remember now,
17 but if you think back to the time in 2008, 2009, 2010 and
18 people were saying to themselves, *Android, what is that? Is*
19 *that going to have the apps I need on it? I don't know if I*
20 *want to the commit to that or not.* It's past all that. It's
21 measuring past the period of time when people were truly making
22 those decisions in the marketplace.

23 **THE COURT:** You're saying that by 2010 -- really
24 that's Google's point. You're saying that by 2010, consumers
25 figured they -- figured that apps were going to be available on

1 all platforms and so that was less of a consideration than
2 the -- how spiffy the hardware was, I guess.

3 **MS. HURST:** Well, Your Honor, what I'm saying is they
4 had succeeded in getting the numbers that they needed by that
5 point to roughly establish the platform, and here, Your Honor,
6 this is the rewrite history thing. There is no way that
7 Google at this -- at the time just thought it was pure
8 speculation about whether they needed apps or not. Here is
9 their document that was submitted in the first trial, Trial
10 Exhibit 1061 on page 16, Your Honor. I'm going to hand up --
11 this is their whole master plan that they're still talking
12 about late in 2010. This is the whole strategy here for
13 Android.

14 **THE COURT:** Well, it's a huge page. Tell me which one
15 I should look --

16 **MS. HURST:** So Phase 1, Your Honor, ecosystem
17 building.

18 And, Your Honor, by the way, Dr. Jaffe, who is going to
19 talk about platform economics, will absolutely come and say
20 that this was critical, too. That there is a mutual
21 interdependency between these things and you can't just say one
22 of them is not important to the other. They're all depending
23 on each other. You need --

24 **THE COURT:** Well, I know, but they get to have their
25 say, too. Jaffe is your guy; right?

1 **MS. HURST:** Absolutely, Your Honor. But this one is
2 in Google's own words.

3 **THE COURT:** Help me. What is so important about this
4 page?

5 **MS. HURST:** Because, Your Honor, it describes the
6 things that they need to build their ecosystem to launch this
7 thing as Phase 1, and apps are a significant component of that.

8 **THE COURT:** They've got five bullet points. One of
9 them is apps.

10 **MS. HURST:** Absolutely. So they can't stand up here
11 now and say apps were unimportant to establishing this
12 platform, Your Honor. That is just rewriting history. And to
13 stand up and say well, apps -- which is what they want to do.
14 They want to come in, and they have a survey by Dr. Simonson
15 that says apps don't really matter and they have this Kim model
16 that says apps don't really matter, even though internally what
17 they were actually saying at the time is apps are super
18 important.

19 **THE COURT:** Look, that is a good point for the jury,
20 but as long as the methodology is right and the procedures have
21 been fair and everyone has disclosed what they should and there
22 are all those procedural requirements that are important -- but
23 Google is entitled to come and say to the jury, *Yeah, we said*
24 *all those things back in 2008 and we were wrong. It turned out*
25 *we didn't need to have apps.*

1 Now, maybe the jury will laugh at that and say, *How*
2 *ridiculous can you get?* Maybe they won't. Maybe they will
3 say, *That's really true. It turned out to be that apps are not*
4 *important.* But they have the right to make that argument and
5 if -- as long as the expert has done -- it's not a *Daubert*
6 challenge that it contradicts their own internal documents. So
7 I --

8 **MS. HURST:** All right, Your Honor.

9 **THE COURT:** All right.

10 **MS. HURST:** I think --

11 **THE COURT:** We got to bring this to a close.

12 **MS. HURST:** I will, Your Honor. There are a number of
13 fit problems that respectfully, in our view, we think do rise
14 to the level --

15 **THE COURT:** Mr. Cooper wants to say something.

16 **MS. HURST:** The data problem, Your Honor, is
17 insurmountable.

18 **MR. COOPER:** Dr. Kearl would like to make a very brief
19 statement.

20 **THE COURT:** Sure. Dr. Kearl, come forward, please.

21 **DR. KEARL:** Let me clarify something and answer your
22 question directly.

23 The Kim model was estimated using apps from 2010 to 2011.
24 Leonard's analysis uses apps that he pulled from App Annie from
25 2012 to 2015. The number of apps that Mr.-- Dr. Leonard

1 excludes in his -- by using these five criteria for inclusion
2 is 3.6 percent. I said 2 percent earlier. It's the weighted.
3 Again, it's the weighted.

4 All of the C++ apps are in my counterfactual, so they're
5 there. The games apps written in C++, they're there. And the
6 final --

7 **THE COURT:** Wait a minute. Counsel told me -- just a
8 second. What is his name again? Your name?

9 **MR. RAGLAND:** Steven Ragland.

10 **THE COURT:** Come up here. You told me that Dr. Kearl
11 had excluded the C++.

12 **MR. RAGLAND:** Your Honor --

13 **THE COURT:** You did say that?

14 **MR. RAGLAND:** Okay. Well, I believe -- my belief is
15 what I said in the primary thing, is that the five criteria
16 Dr. Leonard assumed would still be included all of the C++.

17 I did, Your Honor, and my understanding is -- and I will
18 find it and I do apologize if I was wrong -- but I believe that
19 there was at least one C++ app that was eliminated, and I'm
20 looking at it right now. I wasn't implying --

21 **THE COURT:** Then --

22 **MR. RAGLAND:** I wasn't saying Dr. Kearl eliminated all
23 the C++ apps.

24 **THE COURT:** That's certainly the way it came across.
25 Did you eliminate even one C++?

1 **DR. KEARL:** I don't know. I simply disabled
2 Dr. Leonard's selection criteria. I didn't go app by app.

3 After my criticism of Dr. Leonard, he went back and went
4 app by app with criteria that are unknown and put apps back in.
5 But I just -- he had a selection criteria, and I simply turned
6 off the selection criteria, and if it missed a C++ app, you
7 know, I missed it in that case.

8 **THE COURT:** All right.

9 **DR. KEARL:** The final thing I wanted to say is all
10 econometrics is estimated on actual data, so there is no way of
11 avoiding the affected period issue, but econometric models are
12 routinely used with appropriate caution for counterfactuals.
13 That is done routinely. This is not -- Dr. Leonard's
14 methodology here is not an odd or strained methodology.

15 You could argue that the -- that he's underestimated the
16 response because of the affected period, but that means that
17 the model would still be useful for putting a lower bound on
18 the damages if you thought that in the earlier period there was
19 greater response that was not reflected in the econometric
20 model.

21 **THE COURT:** All right. We are going to break now for
22 15 minutes. Thank you.

23 (Recess taken at 9:29 a.m.)

24 (Proceedings resumed at 9:51 a.m.)

25 **THE COURT:** All right. Thank you. Please be seated.

1 Let's move to a new topic. What is the next subject we should
2 try to take up?

3 **MS. ANDERSON:** Your Honor, yesterday we noted at the
4 close of yesterday's session there is a few additional points
5 concerning the motion in limine concerning Dr. Leonard that I
6 would hope for an opportunity to briefly address with the
7 Court.

8 **THE COURT:** Is that average value?

9 **MS. ANDERSON:** No, Your Honor.

10 **THE COURT:** All right. Go ahead.

11 **MS. ANDERSON:** All right.

12 So as Your Honor may recall, Oracle has moved in limine
13 concerning Dr. Leonard primarily on the subject of the
14 non-infringing alternative subject which we talked about
15 yesterday. And what I wanted to do briefly is discuss with the
16 Court and describe the counterfactuals that Dr. Leonard used
17 because I think it's helpful both in understanding his opinion,
18 but also in understanding why they're not impermissible under
19 the law.

20 So if I may -- and it might be helpful to the Court to
21 walk through specific paragraph numbers just so you have them
22 at your fingertips of the report.

23 But what Dr. Leonard did was first he spent significant
24 time in his report starting at about paragraph 96 and going on
25 to paragraph 139 where he just discusses a variety of factors

1 in the market and conducts a qualitative analysis. And this
2 qualitative analysis is something that allows him to reach the
3 conclusion that the contribution of the declarations and the
4 SSO is small.

5 So from a qualitative perspective, this isn't a
6 quantitative assessment, but he basically identifies all of the
7 many factors that play, the many things that contributed to
8 success of the platform, and concludes as a general matter this
9 is a small contribution we're talking about.

10 Then he turns at about paragraph 174, which is on page 84
11 of his report, and he starts talking --

12 **THE COURT:** I'm sorry. Wait a minute.

13 **MS. ANDERSON:** Sure.

14 **THE COURT:** I'm back at page 48. I skip to where?

15 **MS. ANDERSON:** Well, if you skip forward to page 84,
16 which is paragraph 173 and 174 of the report, Your Honor --

17 **THE COURT:** Wait.

18 **MS. ANDERSON:** This is --

19 **THE COURT:** I got to get to 84. Hang on.

20 **MS. ANDERSON:** Sure.

21 **THE COURT:** I'm at 84. Go ahead.

22 **MS. ANDERSON:** This is the part of his report,
23 Your Honor, where Dr. Leonard starts talking about well, how do
24 we quantitatively assess how to apportion profits attributable
25 to the infringement as opposed to the rest of the platform.

1 And what he explains in this portion of his report is he says
2 that he conducts bottom-up approaches to measuring the
3 apportionment of profits to the alleged infringement and later
4 he conducts top-down apportionments.

5 So if we can, I just want to briefly walk through the
6 bottom-up apportionments. He explains in his report that as he
7 concluded from a qualitative perspective, the contribution of
8 the alleged infringement to Google's Android-related profits
9 was that it generated a cost saving for Google by allowing
10 Google to avoid taking certain costly actions, such as
11 licensing the allegedly infringing work under OpenJDK and the
12 work that required implementing those API packages prior to
13 launch or paying for developers to be trained in another
14 language or paying for application development.

15 So what he is explaining in this first introductory
16 paragraph 174 is just an overview, is he was looking at, given
17 that he has concluded qualitatively this is a small
18 contribution, quantitatively how can he put a number on the
19 contribution?

20 So if you turn to page 85 of his report, starting at
21 paragraph 175, he starts working through each of these
22 counterfactual ways of assessing well, what are the costs
23 avoided here, what is a way that I can quantitatively put a
24 number on what was the cost savings to Google by using the
25 allegedly-infringing features.

1 So what he has done is walked through each of these.
2 Let's take them one by one. First of all, he measures,
3 starting at paragraph 175, calculating what were the avoided
4 costs associated with licensing OpenJDK. If Google had decided
5 to take a license to OpenJDK back then and then right after it
6 had been launched, which requires some quick work and then
7 implementing that as part of the platform, that additional work
8 he concludes from a perspective of engineering time is
9 approximately \$85,000. And that you see is a conclusion he
10 reaches in paragraph 178. So that's one option. At the time,
11 that's the cost avoided. That's a numerical reasonable
12 evaluation of cost avoided at the time.

13 The second --

14 **THE COURT:** Wait a minute. \$85,000 to do what?

15 **MS. ANDERSON:** Just the engineering time that would be
16 required to implement OpenJDK to utilize a licensed version of
17 the declarations that we're talking about in this case. And
18 that is the first straightforward calculation he does for
19 assessing numerically what are the costs avoided.

20 Next going to on to paragraph 179, Your Honor, he says
21 well, an alternative thing, an alternative measurement of the
22 cost associated here is avoidance of costs associated with
23 developer training. So he measures the contribution of the --
24 the API declarations by avoided costs associated with training
25 third-party app developers. He assesses what would it have

1 cost Google to train third-party app developers who were
2 unfamiliar with an alternative programming language like C or
3 C++.

4 If the whole issue here is well, the Java language is
5 something that was used by developers and we were trying to
6 advance a platform that didn't utilize the Java language, then
7 what would we have to do to train app developers in a different
8 language. And so he assesses the costs associated with that
9 starting at paragraph 179 and going on through 181. Again,
10 that's a straightforward numerical assessment of the costs that
11 he says Google saved by having used the API declarations at
12 issue, and he concludes that's about 2.256 million dollars.
13 That's paragraph 181. Again, that's a straightforward
14 numerical calculation of costs to educate.

15 Then he goes on in paragraph 182, Your Honor, to a third
16 and, again, alternative assessment of costs that were avoided
17 by having used the API declarations at issue. And here he says
18 well, there's avoided costs associated with potentially
19 promoting or paying for app development. What if Google
20 couldn't use the Java declarations at issue? Then they needed
21 to pay third-party developers to develop apps to attract those
22 apps to the platform, to make up for this deficit that Oracle
23 claims would have existed if we didn't have the use of the API
24 declarations.

25 And for that, he again calculates, starting at paragraph

1 182 and going on through 184, just a straightforward
2 calculation which he explains why it's a conservative one that
3 Google would have had to pay for development of these apps by
4 paying developers, and that cost he estimates between 23 and a
5 hundred million dollars, depending on the cost of app
6 development.

7 So, again, these are straightforward calculations designed
8 to come up with a reasonable assessment of what costs were
9 avoided by having used the API declarations at issue. They are
10 not highly complex.

11 The next thing that Dr. Leonard does, which we don't need
12 to discuss -- we already addressed it -- is the Kim model
13 assessment. We already closed a discussion on that.

14 And then moving forward, starting at page 94, paragraph
15 197, he talks about his straightforward top-down approaches in
16 assessing apportionment by identifying the percentage of
17 Android-related profits that should be attributed to the
18 alleged infringement by calculating ratios related to numbers
19 of lines of code. And I know that's -- that's another motion,
20 but I just wanted to identify, Your Honor, these are the --
21 these are --

22 **THE COURT:** Help me understand the lines of code
23 approach.

24 **MS. ANDERSON:** Sure, Your Honor.

25 **THE COURT:** Page 94.

1 **MS. ANDERSON:** So what you want to do is take a look,
2 Your Honor -- it starts at page 94. He talks about the
3 application of an apportionment percentage to the
4 Android-related profits. And what he does, starting at
5 paragraph 198, is he takes his first approach and he apportions
6 the Google Search and Ad revenue such that 1.9 billion is
7 apportioned to Android. He then goes on and explains that he's
8 seen no evidence that the programming effort that went into the
9 infringing material had any higher level of ingenuity than the
10 rest of the Android, and he relies for this opinion both on the
11 discussion that he includes of how Android works and the other
12 materials at issue, but also he relies on the technical expert,
13 Dr. Astrachan, and he identifies the paragraphs.

14 And he goes on and in a second step, he apportions 1.7
15 percent of those profits to the infringement, which is a
16 conservative assessment because his numerator includes the
17 implementing code, along with declarations.

18 **THE COURT:** Wait a minute. Go back to the first -- is
19 this bottom-up or top-down?

20 **MS. ANDERSON:** Right.

21 **THE COURT:** The number he comes up with is not
22 1.9 billion, but 32 million.

23 **MS. ANDERSON:** Well, he concludes that 1.9 billion is
24 apportioned to Android. See, in paragraph 198, he says, "I
25 have taken two approaches to top-down apportionment. Under the

1 first approach, in a first step, I apportioned between Android
2 on the one hand and Google Search and Ad Technologies and
3 Services on the other." And he says that yields a \$1.9 billion
4 apportionment of profit to Android.

5 And in a second step, he says, "I then apportioned between
6 the 37 API packages on the one hand and the remainder of
7 Android on the other." He notes that he hasn't seen evidence
8 that the programming that went into the allegedly-copyrighted
9 material reflects any higher level of ingenuity than the
10 programming that went into other parts of the Android.

11 And he goes on and this continues onto the next page,
12 Your Honor. He explains the evidence at issue and he talks
13 about the fact that he understands the evidence supports
14 conclusions about the nature of the API declarations and the
15 fact that, among other things, Oracle's own witness has
16 testified that he didn't feel that the implementing code of
17 those APIs, which as Your Honor remembers is not accused of
18 infringement here, is no less valuable than the declarations
19 here. So that's Dr. Reinhold, one of Oracle's key witnesses.

20 So -- yes? Excuse me.

21 (Counsel confer off the record.)

22 **MS. ANDERSON:** Okay. Yes. Yes. Thank you.

23 So, Your Honor -- and his calculations, as you see,
24 continue on to 202, but as a result of what he does,
25 Your Honor, he says in paragraph 201, "As discussed above, the

1 1.7 percent apportionment percentage should be applied to the
2 1.9 billion that was apportioned to Android in the first step."

3 **THE COURT:** How did he get the 1.9?

4 **MS. ANDERSON:** Going back, Your Honor, what he does is
5 he apportions between Android on the one hand, so we have
6 Android and the platform and its lines of code on the one hand,
7 and you have all of the other lines of code associated with
8 Google Search and Ad Technologies on the other. So he comes up
9 with a ratio, basically.

10 **THE COURT:** Is that done somewhere earlier in the
11 report?

12 **MS. ANDERSON:** Yeah. Let me -- let me find the
13 specific page --

14 **THE COURT:** It says "as described above."

15 **MS. ANDERSON:** Paragraph 50, Your Honor.

16 **THE COURT:** Paragraph what?

17 **MS. ANDERSON:** Five zero, Your Honor. Fifty.

18 **THE COURT:** Paragraph five zero.

19 **MS. ANDERSON:** Yes. Starting at paragraph 50.

20 **THE COURT:** Is that page 27?

21 **MS. ANDERSON:** Yes, it is, Your Honor.

22 **THE COURT:** I'll just write *see paragraph 50*. All
23 right. Okay. So --

24 **MS. ANDERSON:** Right. And this paragraph references
25 Exhibit 1-A-4 to the report, which lays out, I believe, the

1 calculations. Let's pull it out for the Court here. Exhibit
2 1-A-4.

3 **THE COURT:** All right. What is his second top-down
4 approach?

5 **MS. ANDERSON:** So -- one second, Your Honor. Just let
6 me jump back to where you were.

7 In the second top-down approach, Your Honor, and you look
8 at paragraph 202 for this, the numerator of this calculation or
9 ratio is the code in 37 APIs, and, again, this is conservative
10 because it includes not just declaring code, but also
11 implementing code. And the denominator of this ratio is all
12 the code in Android plus in Google's primary search and ad
13 base. So that ratio equates to .4 percent, which equates in
14 turn when applied to the number -- it results in a \$56 million
15 apportionment.

16 And it's important to note here that that calculation in
17 202 is also conservative because it -- it is applied to the
18 \$14.2 billion number for profits and does not deduct the iPhone
19 opportunity costs number, which Your Honor may have noted was
20 discussed.

21 **THE COURT:** Wait a minute. Hang on a second.

22 **MS. ANDERSON:** Sure.

23 **THE COURT:** I think there is a goof here on paragraph
24 202.

25 **MS. ANDERSON:** Okay. Your Honor. Where are you at?

1 **THE COURT:** He refers to *numerator* twice, but I think
2 he must mean *denominator*.

3 **MS. ANDERSON:** It is a typo, Your Honor.

4 **THE COURT:** Typo? What do you mean *typo*?

5 **MS. ANDERSON:** Typographical area --error. Excuse me.

6 **THE COURT:** It's not misspelled or anything. Did he
7 mean *denominator*? Is that what you mean?

8 **MS. ANDERSON:** Yes.

9 **THE COURT:** That's not a typo. That's just a goof.

10 **MS. ANDERSON:** Error, yes.

11 **THE COURT:** All right. Denominator. All right. So
12 just a minute. Let me read what it is.

13 "I calculate apportionment percentage where the numerator
14 is the lines of declaring and implementing code in 37 API
15 packages and the denominator is the sum of lines of code in
16 Android overall, 1.7." But up above there, he said it was 15
17 million lines of code.

18 **MS. ANDERSON:** In the Android platform, that's
19 correct. What he is doing is he is including in that
20 denominator the lines of code attributable to the Android
21 platform, but also -- because again here, these are revenues
22 that Oracle is seeking to attach. He includes lines of code
23 for the search code base and Google's primary ad code bases.
24 Those are 1.7 and 48.5 million lines respectively.

25 **THE COURT:** Then he multiplies that against what?

1 **MS. ANDERSON:** This particular one he multiplies
2 against the \$14.2 billion number, the Android-related profits
3 number that was discussed and -- by Oracle's expert as well.
4 And he did not apply the iPhone opportunity cost to this.

5 So by having users activate devices on the Android
6 platform by definition, it means they're not activating a
7 device on the iPhone platform. So there is an opportunity cost
8 when somebody decides to go with Android. Google is therefore
9 not generating revenues on the iPhone platform or other
10 platforms.

11 **THE COURT:** Let me ask this. Is there any motion
12 directed to this second method?

13 **MS. HURST:** I'm trying to figure that out right now,
14 Your Honor, in order to assist the Court. Give me one moment.

15 **THE COURT:** Well, all right.

16 **MS. HURST:** Your Honor, we don't have an NIA objection
17 to this calculation.

18 **THE COURT:** Yes. But do you -- I'm not saying it
19 should be objected to, but if no one is objecting to it, then
20 I'm going to pass any questions I've got about it.

21 **MS. HURST:** I think that's fair, Your Honor. Not
22 until we get to the further apportionment.

23 **MS. ANDERSON:** And I had one last --

24 **THE COURT:** Wait a minute. So you come up with 56
25 million. All right. So -- all right. What is your point?

1 **MS. ANDERSON:** So here is my point, Your Honor. I
2 just wanted to identify first for Your Honor the fact that
3 setting aside obviously the Kim model has complexities related
4 to econometrics, but the other counterfactuals, the other cost
5 avoidance approaches that Dr. Leonard presents are quite
6 simple, and the Court had expressed concern yesterday in the
7 discussion of non-infringing alternative and counterfactuals, a
8 concern that it somehow didn't satisfy the statutory purpose.
9 I remember Your Honor expressing those views.

10 And the issue, I think, is resolved by looking at the
11 language of the statute. That statute makes clear that someone
12 suing for copyright infringement here can get actual damage,
13 which in this case, they're seeking lost profits. And it also
14 can get disgorgement of infringers' profits, but not if they're
15 duplicative of actual damages.

16 And so by definition, there is a recognition here by
17 Congress in the statute that these are not duplicative. And
18 the court has explained -- courts have explained this often
19 results in a scenario where plaintiffs are found that you're
20 lucky -- you kind of end up getting whichever is greater,
21 especially when you're in a situation where the parties are in
22 purportedly the same market.

23 Here we have Oracle essentially claiming that they would
24 have earned a significant amount of profits in the market that
25 they've identified that Android is in. They are seeking a

1 chunk of money for those profits. It is therefore not
2 surprising that in a case like this where you have a plaintiff
3 who purports to be a would-be competitor of the defendant, that
4 there would be significant overlap between an actual damage
5 lost profits claim and the claim for disgorgement of
6 infringers' profits because that plaintiff is essentially
7 saying, *I would have been in that market, I would have gotten*
8 *that money. Give me my actual damage.* That's lost profits.
9 *Okay. Now give me the money you made.*

10 Well, that may be significantly or identical the same
11 amount of money. So it is not contrary to the statutory scheme
12 in a scenario like that that you see that the disgorgement of
13 infringers' profits can be quite small, if not zero, and we
14 know that this is important because this principle that -- the
15 statute stands for principles of disgorgement and not punitive
16 measures. We see it in *Sheldon*, we see it in *Polar Bear*. The
17 idea here is they get what's entitled to them, but not more,
18 and if, as here, you have an actual damage claim that, in our
19 view, would usurp and especially here where we found that the
20 contribution of these declarations is, at best, quite small,
21 then it's not surprising.

22 And there may be other cases where the plaintiff is in one
23 market, the defendant is in an entirely different market. You
24 could see a potential for an actual damage claim of lost
25 profits to be quite different than the disgorgement claim

1 because potentially that defendant is operating in a different
2 market and has done different things with the accused
3 infringing work and has made money in a certain way.

4 But here this is consistent with the statutory scheme, and
5 it's just something I wanted to point out to the Court. It's a
6 principle we see recognized in *Sheldon*, *Polar Bear* and cases
7 like *Bucklew* and wanted to point that out.

8 So I appreciate the Court giving us an opportunity to
9 respond to those points.

10 **THE COURT:** All right. So let me ask Oracle -- I
11 guess that's going to be Ms. Hurst. What Ms. Anderson is
12 saying is that your lost profits analysis is seeking the same
13 profits that Google made with Android and basically saying you
14 would have made those profits instead of Google. And under the
15 statute, you can only recover one or the other, but not both.
16 So what do you say to that point?

17 **MS. HURST:** Your Honor, that is the statutory no
18 double counting. And Mr. Malackowski took pains in his report
19 and he confirmed in his deposition that you would not add the
20 two numbers together that he had for lost profits and
21 disgorgement in case there was any overlap.

22 **THE COURT:** How are we going to know whether there
23 is -- what is -- let's say that there's a \$400 million lost
24 profits award and a -- let's just make up a number, \$3 billion
25 disgorgement number. How are we supposed to know? Do we just

1 automatically subtract the 400,000?

2 **MS. HURST:** I think so, Your Honor. The verdict form
3 we are going to propose in today's pretrial conference
4 statement says the amount of disgorgement you award, not taking
5 into account actual damages. We are not going to propose that
6 the numbers be added together in any respect.

7 **THE COURT:** So you would then get the higher of the
8 two, but not added together?

9 **MS. HURST:** Absolutely, Your Honor.

10 **THE COURT:** Doesn't that solve your problem,
11 Ms. Anderson?

12 **MS. ANDERSON:** Your Honor, it really doesn't. And the
13 reason that I raise this with the Court is to address the
14 theoretical concern I understood Your Honor to be expressing
15 with the idea that somehow consideration of counterfactuals
16 somehow watered down the disgorgement remedy in a way that
17 Your Honor seemed concerned about.

18 **THE COURT:** Well, I still feel that way. I don't
19 understand why anything you said changes my mind on that.

20 **MS. ANDERSON:** Because, Your Honor, the way that the
21 statutory scheme works, it is absolutely possible that a
22 plaintiff may get nothing for disgorgement, depending upon the
23 nature of the markets, depending upon the nature of the
24 product, because if -- if we find that in fact that infringing
25 aspect did not contribute to the profits, they get nothing.

1 And that's totally consistent. And even if they can prove lost
2 profits, it's still valid within the statutory framework.

3 And --

4 **THE COURT:** You're not -- I want to give you my
5 hypothetical again. I can give you -- I'll give you first the
6 concept and then I'll give you an example.

7 Your theory of non-infringing alternatives allows a
8 blatant infringer -- and I'm not saying that Google is a
9 blatant, willful infringer, but in any other case -- maybe it
10 is, maybe it isn't here, but in any other case, you can
11 infringe all day long and then get away with saying to the jury
12 well, we could have gotten a license. We -- if we had known we
13 needed a license, we would have just gotten one so the
14 disgorgement number is the cost of a license. That would be
15 the high end.

16 You could -- in the example that I gave of the photograph
17 book, the guidebook where you had a photographer whose
18 copyrighted photograph was used, let's say, for Coit Tower, the
19 publisher would have just said, *Hey, for \$10 we could have*
20 *taken our own picture, so \$10 is what the disgorgement should*
21 *be.*

22 Now, Congress could not have had that in mind. What I
23 think Congress had in mind was if an infringer uses somebody
24 else's work to go out and make a lot of money, then you got to
25 figure out of all the profits that were actually made, those

1 profits would have gone to -- at least an apportionment of them
2 would have gone to the copyright holder, and you can't get out
3 of it so neatly as to just say, *Oh, for \$10, we could have made*
4 *our own photograph.*

5 So that's what -- it's a legal question. It's a
6 concept -- a policy question of what did Congress have in mind.
7 Now, if Congress did have in mind non-infringing alternatives,
8 then subject to some of the 403 considerations that I laid out,
9 yeah, of course -- and maybe economists would say that's the
10 way you should do it, but the economists are not the people in
11 Congress. The people in Congress, I think, had a pretty
12 distinct idea of what they had in mind, and so -- maybe --
13 maybe you and I just have a disagreement, and once again, we'll
14 get a chance for a great appellate argument when the jury
15 renders its verdict.

16 **MS. ANDERSON:** I think, Your Honor, that we do know
17 what Congress meant.

18 **THE COURT:** Tell me then.

19 **MS. ANDERSON:** In large part because of what they said
20 in the statute.

21 The plaintiff here is only entitled to disgorgement and we
22 know from *Polar Bear* and governing law in this circuit, they're
23 only entitled to the portion of the profits that actually
24 attributed to the infringing activity. They're not entitled --
25 there is no statute entitling them to more than that.

1 That's why the doctrine in this circuit and others doesn't
2 just recommend but requires courts to perform a reasonable and
3 just apportionment to assure that we avoid the injustice that's
4 talked about in cases like *Sheldon* of a plaintiff getting more
5 than what their work earned.

6 **THE COURT:** Well, of course. And so let's take your
7 line of code approach. I think that's okay. Your top-down
8 approach where you have the lines of code counted up. I'm
9 not -- I don't know where the -- I don't know if the
10 1.9 billion is good or not. I'm not -- I'm not going to bless
11 that, but no one is challenging it right now anyway.

12 But the idea that you would then say okay, let's look at
13 the Android platform and how many lines of code it had and do a
14 numerator, denominator, and then multiply it out, that may be a
15 third-grader's approach, but to me that's okay. It's just
16 rough justice. It's one benchmark.

17 Another one might be okay, let's look and see how many
18 times the apps call up those lines of code. Maybe then it's
19 ten times as much. You give the jury those kinds of benchmarks
20 for how it was actually used, but what I think would be a
21 mistake to give the jury is to say this is how easily we could
22 have avoided infringement and get off and -- because the
23 real-world profits that were made were made using this
24 copyright owner's valuable work.

25 And so they ought to -- it would be just as if they went

1 out there and did that work and they ought to be able to reap
2 the profits.

3 Let's take somebody just had a book, a famous book, *To*
4 *Kill a Mocking Bird*. Somebody went out there and started
5 selling their own version of it and made millions of dollars.
6 Every nickel of that should go back to Harper Lee. Not just
7 some percentage of what they could have negotiated a license
8 for. Every nickel of it. That's what Congress meant. You
9 couldn't get out of it because you -- you could have maybe
10 gotten a license.

11 **MS. ANDERSON:** But, Your Honor, that clearly -- A,
12 that's not the scenario we have here. And, B, we know from the
13 case law that courts routinely consider these counterfactuals.

14 **THE COURT:** No, they don't. No, they don't.

15 **MS. ANDERSON:** Well, we have --

16 **THE COURT:** No, you don't. I looked at every decision
17 you cited and they were all like the facade case where the
18 buyer came in and said that facade didn't mean a thing to me.
19 That was it. It was one line. It was one line of testimony
20 where the actual buyer said, *I placed no value whatever on that*
21 *facade*.

22 We don't have any of these counterfactuals that are as
23 elaborate as what you are trying to construct.

24 **MS. ANDERSON:** Well, Your Honor, we did cite to you
25 cases in which the Court's discussion reflects the fact that

1 part of the evidence in the case concerned things like in
2 *Bucklew* that the defendant could have designed its own
3 non-infringing program that would have duplicated the essential
4 and non-copyrighted features. We talked with you about cases
5 in which, for example, a different logo could have been used.
6 That's *Bouchat*. What I'm trying to say --

7 **THE COURT:** There was something about that *Bucklew*
8 case that didn't quite fit and I can't remember now. I read
9 that one, too, and it was distinguishable. There was not a
10 single case where it was used for disgorgement in the way that
11 you're trying to use it. Not a single one.

12 **MS. ANDERSON:** Well, Your Honor, again, my -- my
13 fundamental point here is Ninth Circuit law requires a
14 reasonable and just apportionment. Economists who do this work
15 all the time tell us this is a reasonable way to assess the
16 apportioned value. And the types of counterfactuals we're
17 proffering are not complex. The kinds that I read to you,
18 Your Honor, trying to figure out how much it would cost to
19 educate developers and otherwise, that is not a complex
20 counterfactual, and, again, I just wanted to reiterate those
21 points for the Court because I think it's important --

22 **THE COURT:** All right. Thank you for bringing it all
23 to my attention. All right.

24 So we have now taken up another hour on something I didn't
25 intend to take up. I'm running out of time and patience. We

1 need to get to whatever else you want to get to.

2 What other motions do you have, Ms. Hurst?

3 **MS. HURST:** Your Honor, we don't -- we don't --

4 **THE COURT:** None. Okay. Good.

5 Let's hear from the other side. What motions do you have?

6 **MR. VAN NEST:** Well, the one I would -- there is only
7 two more, Your Honor. The one I would like to cover is the
8 second issue that we didn't get to yesterday on Malackowski.

9 **THE COURT:** Wait a minute. There was one on average
10 value line.

11 **MS. HURST:** Your Honor, we do have that.

12 **THE COURT:** Is that the one I've already said I'm okay
13 with?

14 **MS. HURST:** Can I give you one piece of evidence on
15 that, Your Honor?

16 **THE COURT:** All right.

17 **MS. HURST:** I'm going to hand it up right now.

18 **THE COURT:** You can't knock them out and not have
19 anything to say. They are going to be allowed to say
20 something, and the average line, I think that's a pretty
21 good -- to me it's a decent approach. I'm going to overrule
22 you on that one. I have read it.

23 **MS. HURST:** Got it.

24 **THE COURT:** We got to move on.

25 Mr. Van Nest, your turn.

1 **MR. VAN NEST:** Thank you, Your Honor. We -- Bob
2 Van Nest.

3 We talked yesterday about one of the two critiques we have
4 of Malackowski. That was the causal nexus. I don't want to
5 revisit that. But what I do want to revisit is his testimony
6 and opinions on apportionment.

7 What he essentially wants to tell the jury is that he's
8 assigned one hundred percent of the revenues from Android to
9 these lines of code and these declarations. I'm going to put
10 advertising revenue aside for a minute because he does adjust
11 there. And he's going to say, *I didn't apportion because when*
12 *you commingle infringing and non-infringing code, you make it*
13 *impossible*, and the law then, he says, doesn't require any
14 apportionment below the platform level. That's how he gets to
15 this huge \$8.8 billion number. He says --

16 **THE COURT:** Go bring -- you're making a good point, I
17 think, and I can't follow it because there's too many -- bring
18 over the easel, please, and you can draw me a cartoon that will
19 illustrate what you're trying to say. Okay.

20 **MR. VAN NEST:** Your Honor, I'm taking this from his
21 report at page 80, Figure 12.

22 **THE COURT:** 80?

23 **MR. VAN NEST:** I have a copy, if Your Honor would
24 like, right here.

25 **THE COURT:** No. I got the report. Page 80?

1 **MR. VAN NEST:** Right.

2 **THE COURT:** Uh-huh.

3 **MR. VAN NEST:** Figure 12.

4 **THE COURT:** Yes. I got Figure 26.

5 **MR. VAN NEST:** What's that?

6 **THE COURT:** My page 80 --

7 **MR. VAN NEST:** Are you looking at the right report?

8 He has a number of reports. This is the February 29th
9 responsive report of Mr. Malackowski.

10 **THE COURT:** I'm looking at expert report, January 8th.

11 **MR. VAN NEST:** That's -- I have the February 29th
12 report right here. I have a copy --

13 **THE COURT:** Naturally I got the wrong thing. Okay.
14 All right. Sorry.

15 **MR. VAN NEST:** I'll hand it up. I have opened it to
16 the page. Thank you.

17 **MS. HURST:** Page 80, you said?

18 **MR. VAN NEST:** Yes.

19 **THE COURT:** I can't believe we're getting reply of
20 reports that are 80 pages long.

21 **MR. VAN NEST:** So here's my point. If you want to
22 just make reference to the chart for a minute.

23 **THE COURT:** All right. I see the chart.

24 **MR. VAN NEST:** So what he does is he starts with the
25 gross profit of ad revenues. You can see the top line there.

1 He says that the average amount that Google pays to be on other
2 platforms, this averages 35.6 percent. So I'm going to give
3 the platform Android that -- that's what Android has provided.
4 He's going to give two-thirds, in other words, the difference
5 between a hundred percent and 35, he is going to say okay, that
6 we don't get. That's the value of search and ad technology.
7 So I boil it down to 8 billion dollars. That's all ad revenue.

8 That next line, gross profits of other Android revenue,
9 that's all other Android revenue, everything. And he is
10 saying -- he's saying that all -- that's all going to go --
11 that's all going to go to Oracle. By that -- by everything, I
12 mean sales of phones, sales of applications, sales of
13 downloads, anything -- any revenue that Android generates,
14 there's his number.

15 He then subtracts cost. It costs money to generate these.
16 You have to, in some cases, buy content. There are various
17 expenses, and that's where he gets down to his 8.8 billion.
18 And then he says, okay, what he says is -- and this is where we
19 have the beef. He says, *Yes, I understand that Android is a*
20 *big, big thing. I understand that there's a Linux kernel.*
21 *That adds value. That contributes to profits. I understand*
22 *that there is a virtual machine. That contributes to profits.*
23 *I acknowledge that. I understand that there is implementing*
24 *code. That adds value. I understand. I acknowledge that. I*
25 *understand that the phone itself and what the OEM contributes,*

1 *that's part of the value to consumers and all the things that*
2 *come with the phone that have nothing to do with Java. I also*
3 *understand that it has value because it's Open Source and*
4 *everybody could adopt it without paying for it. That he*
5 acknowledges throughout his deposition, but he doesn't
6 attribute one dime of apportionment to that --

7 **THE COURT:** He doesn't have to. The statute says he
8 does not have to.

9 **MR. VAN NEST:** That's okay. What we object to,
10 though, is he wants to tell the jury that he couldn't do it and
11 that legally he wasn't required to do it because they're
12 commingled.

13 **THE COURT:** Listen, listen, the first time one of your
14 experts tries to tell the jury what the law is, I'm going to
15 jump in without any one of you -- you will regret the day that
16 any expert tries to -- and that goes for Mr. Brocade and what
17 he -- you cannot start trying to say that he is doing what he
18 did in some other case, unless the door gets opened. You
19 cannot start trying to let these experts say that they followed
20 some legal principle that, according to the law -- that is so
21 bogus, you cannot do that.

22 **MR. VAN NEST:** Well, here's --

23 **MS. HURST:** We have no intention of offering legal
24 testimony from this witness, Your Honor.

25 **THE COURT:** He should not even -- none of them should

1 mention legal standards without clearing it with me first.

2 **MS. HURST:** Your Honor, if the Court keeps reading in
3 the section that Mr. Van Nest has identified, in paragraph 285,
4 it describes the business reasons why Mr. Malackowski has said
5 it is appropriate to not further apportion. Of course he is
6 apportioning. What he is saying is why I'm not going to
7 further apportion. There is not a single mention of a legal
8 standard in there.

9 **MR. VAN NEST:** Wait a minute. This is my motion,
10 Your Honor. If you turn --

11 **THE COURT:** Okay. That's true. Ms. Hurst, you should
12 sit down and --

13 **MS. HURST:** Thank you.

14 **THE COURT:** -- and let counsel have the floor.

15 **MR. VAN NEST:** Here is what I'm worried about and
16 Dr. Kearl is worried about this, too. If you look back two
17 pages or one page to page 78, paragraph 272, this is the thing
18 I'm worried about. It's not just the first sentence; it's the
19 second sentence, too. This is his justification for not
20 assigning any value --

21 **THE COURT:** I got so excited that I have forgotten the
22 whole point. I want to go back to this box here, the Figure
23 12. What is the point? You're saying he gets to 8.8 billion
24 and then I lost what -- I've now gotten off on such a tangent
25 that I don't remember what point we're trying to get at.

1 **MR. VAN NEST:** Here was the point. Here was the
2 point. It's true that he doesn't have to offer an opinion on
3 apportionment because that is the burden of the infringers. I
4 get that. But what he wants to do is something different. He
5 wants to say not only do I not -- did I not do an
6 apportionment, but I didn't have to because these things are
7 commingled, the implementing code and everything else, and
8 legally I don't have to do that because if they're commingled,
9 there is no obligation to apportion, and I think where Google
10 took the risk of infringement -- this is an economic expert.
11 Where Google took the risk of infringement, I am relieved and
12 the jurors are relieved and everybody is relieved of doing an
13 apportionment.

14 And that opinion is set forth in paragraph 272, which is
15 just a page ahead of that. If you look at paragraph 272, what
16 he wants to say is, "My apportionment analysis, my hundred
17 percent attribution to Android, is consistent with the
18 application of the legal theory of commingling and is therefore
19 based on 100 percent of the value of the platform. I find
20 application of that theory appropriate" --

21 **THE COURT:** No. You left out the word *legal theory*.
22 I mean, this is your point. "I find application of that legal
23 theory." All right. Continue on.

24 **MR. VAN NEST:** Right. "Would be appropriate because
25 Google knowingly assumed the risk of its failure to obtain a

1 license and created the scenario whereby the relative
2 contribution" --

3 **THE COURT:** Just a second, just a second. There is no
4 way I'm going to let this guy come in here and testify that
5 Google knowingly did anything.

6 **MR. VAN NEST:** That's my point.

7 **THE COURT:** I just cannot imagine why -- do you, for
8 one second, pretend that some economist is going to be allowed
9 to tell that to the jury?

10 **MS. HURST:** Absolutely, not Your Honor.

11 **THE COURT:** Why is it even in his report?

12 **MS. HURST:** For *Daubert* purposes. To explain the
13 legal framework for *Daubert* purposes. We have no intention of
14 eliciting that testimony in front of the jury. What he would
15 say in front of the jury is in paragraph 285, Your Honor:

16 "The commingling makes it extremely difficult to separate
17 out the items of value. I have applied my judgment as an
18 expert in light of the business circumstances that Google faced
19 at the time to determine that the Java APIs were a gating item
20 to the successful launch of the platform. In light of that
21 significance, it is, in my opinion, appropriate to credit the
22 infringed Java copyrights with the entire value of the platform
23 contribution."

24 **THE COURT:** All right. What's wrong with that part --

25 **MR. VAN NEST:** He can't do that either, Your Honor.

1 **THE COURT:** Why not?

2 **MR. VAN NEST:** Because he testified that he never even
3 tried to do an apportionment, and as Dr. Kearl points out, that
4 statement is based on nothing other than his say-so. Dr. Kearl
5 and Dr. Leonard are both trying to apportion. They have these
6 various ways of doing it, the Kim analysis, the lines of code,
7 and they are both saying you can't can apportion. And in the
8 Ninth Circuit, *Cream Records* requires some apportionment, even
9 where it's difficult.

10 *Cream Records* says you cannot allow an expert or a party
11 in this case to get a hundred percent of the value of a device
12 if it's clear that there are multiple different features that
13 contribute to that success. And --

14 **THE COURT:** I don't think that's the law.

15 **MR. VAN NEST:** It is the law.

16 **THE COURT:** I think what they have to do to draw an
17 analogy is to figure out what the smallest salable unit is.
18 Now, that's patent law, but it's a good analogy, and you don't
19 have to break it down further than the smallest salable unit,
20 and what the trade -- the copyright law Section 504 says is
21 then you look at the gross profits from that and then the
22 burden shifts to you to do the apportionment. They don't have
23 to do the apportionment.

24 **MR. VAN NEST:** They don't. They don't. That's my --
25 that's okay. What I'm objecting to is his testimony -- which

1 you've already excluded part of it, right? I get he's not
2 going to get to say that.

3 **THE COURT:** And he's not going to get to say anybody
4 knowingly did anything.

5 **MR. VAN NEST:** Right. But he also shouldn't be able
6 to say that you can't apportion because these are important and
7 they're key features where he's admitted that there are many
8 other features that contributed to the profit. And in the
9 *Cream Records* case, Your Honor, which is our circuit, the
10 holding there was that because the value -- "disgorgement has
11 got to be based on the infringed work, the copyrighted work.
12 Where it is clear that not all the profits are attributable to
13 the infringing material, the copyright owner is not entitled to
14 recover all of those profits merely because the infringer in
15 this case fails to establish with certainty the portion
16 attributable to the non-infringing elements."

17 In other words, an expert can't admit, as Malackowski did,
18 that the profits are a combined product of the virtual machine,
19 the implementing code, the Linux kernel and everything else,
20 and then say *but I'm not going to apportion because I think*
21 *this piece of code is important*. That the law doesn't allow
22 under *Cream Records*.

23 If there are multiple features -- and he's admitted it
24 throughout his deposition, that all these other features
25 contribute to profit. He can't get up -- he can get up and say

1 *I didn't apportion* and not comment. That's okay. But he can't
2 get up and say, *And I didn't need to. It wasn't required of me*
3 *and under the law or under --*

4 **THE COURT:** But I would tell the jury -- I'm going to
5 tell the jury that under the law -- I'm going to basically
6 follow what the statute says -- the burden shifts and follow
7 what the statute says.

8 Read to me -- what's the name of that? *Cream Records?*
9 Read to me the exact language.

10 **MR. VAN NEST:** It's *Cream Records*.

11 **THE COURT:** Read me the paragraph where it's something
12 like this. I know it was a different technology, but --

13 **MR. VAN NEST:** Well, it's a song. It's part of a song
14 included in an advertisement. It's part of a song. That's
15 what *Cream Records* -- that was the fact circumstance of *Cream*
16 *Records*, and the -- the infringer actually had a license to use
17 the song, but the license expired and they kept using the song
18 in the end. That was the factual circumstances.

19 And the district court had concluded that the infringement
20 was minimal, that it consisted of a ten-note segment, that it
21 didn't add substantially to the value, but it said okay, it did
22 sell some product, some beer, and the music had a part of that,
23 so the court gave a percentage of profits and the Court of
24 Appeal said wait a minute, where it's clear as in this case
25 that not all the profits -- in that case, by the way, the

1 infringer didn't even come forward with an apportionment. They
2 didn't put any apportionment.

3 But the Court of Appeal said where it's clear that not all
4 the profits are attributable to the infringing material -- and
5 Malackowski admits that -- the copyright owner is not entitled
6 to recover all those profits merely because the infringer fails
7 to establish with certainty.

8 What do I mean? He can't get up and say that 8.8 billion
9 is the number. He can't get up -- if he gets up and apportions
10 and he apportions down to three and a half, okay, he has done
11 an apportionment. But because the law requires an
12 apportionment and because he's admitted that there are key
13 elements, he can't get up and say 8.8 is the number --

14 **THE COURT:** But it's the infringer that has got to
15 apportion, not the -- read to me the part that says -- the part
16 you are relying on again in *Cream Records*.

17 **MR. VAN NEST:** In *Cream*? Let me say, in this case,
18 not even the infringer put in an apportionment analysis, but
19 the court sent it back for a redo and said, "Although the
20 statute -- although the statute imposes on the infringer the
21 burden of showing the elements of profit attributable to
22 factors other than the work," in other words, apportionment,
23 "nevertheless, where it is clear, as in this case, that not all
24 the profits are attributable to the infringing material, the
25 copyright owner is not entitled to recover all of those profits

1 merely because the infringer fails to establish with certainty
2 the portion attributable to the non-infringing elements."

3 **THE COURT:** Are you finished with the --

4 **MR. VAN NEST:** What I'm saying --

5 **THE COURT:** Before you do your point, did the court
6 award all of the -- the district court award all of the profits
7 to the --

8 **MR. VAN NEST:** No, no. One-tenth. He did.
9 One-tenth.

10 **THE COURT:** Then how did the Court of Appeals say --
11 get to the conclusion that that was all of the profits if it
12 was only one-tenth? I don't get it. There's something I'm
13 missing here.

14 **MR. VAN NEST:** What the defendant was arguing -- I'm
15 sorry. What the plaintiff was arguing was they were entitled
16 to much more, I think. And that's what -- that's what went up
17 on appeal.

18 **THE COURT:** Well, who -- you said there was a redo and
19 a reversal. It sounds like now it was an affirmance.

20 **MR. VAN NEST:** No. Reverse and remanded.

21 **THE COURT:** Can you go get my copy of this decision?
22 I need it.

23 **MR. VAN NEST:** Let me come back to my main point,
24 though. My main point is that if Malackowski admits that he
25 didn't apportion below the Android platform and he acknowledges

1 that there are many elements of the platform that contribute to
2 the profit, he's not entitled to get up and tell the jury that
3 the proper damage award is 8.8 billion. He could get up and
4 say, *I reach 8.8 billion as an unapportioned number based on my*
5 *analysis and my calculations*, but he can't be allowed, as he
6 intends to do, and say, *Therefore, you can award 8.8 billion as*
7 *disgorgement* because that runs afoul of the requirement in
8 *Cream* and the other cases we've been talking about that all
9 they're entitled to is the share of the profits that they
10 created, right, that were created by the use of the copyright
11 at work.

12 It's not as though -- it's not as though Malackowski is
13 saying the only thing that created value here was these lines
14 of code. He's not -- he's not -- and that would be absurd. He
15 concedes Dalvik Virtual Machine has value and contributes to
16 profits, yes. He concedes implementing code has value,
17 contributes to profits. He concedes Linux kernel contributes
18 to profits. It has value. He concedes Open Source contributes
19 to profits. He concedes all these things. The phone, the
20 phone application, all the stuff that is provided by the -- by
21 the manufacturer.

22 He admits freely all these things contribute to value and
23 contribute to the profits, and then he wants to say *but I can*
24 *ignore all that and the jury can award 8.8 billion in*
25 *disgorgement* because -- he's got a number bases, some of which

1 you've knocked out, but the main basis he's now got is *because*
2 *I think these lines of code are called on frequently and*
3 *they're important to the platform*, and so on and so forth.

4 By the way, Your Honor, while we're on that, even these
5 lines of -- these analyses that they're touting about how often
6 these things are called on and so on, they're talking in
7 virtually all those about implementing code. It's implementing
8 code. These so-called analyses of how critical and central and
9 stuff they are, those depend on the implementing code which
10 Google wrote or used from Open Source.

11 But that's not my point on this motion. My point on this
12 motion is the law doesn't allow him to get up and say Oracle is
13 entitled to 8.8 because this is an important part of the
14 platform.

15 **THE COURT:** I want to go back to the *Cream Records*
16 decision, 1985.

17 **MR. VAN NEST:** So let me correct something I said.
18 The case was remanded, but I think on a different point. I
19 think that the court approved the court's assessment that
20 one-tenth of the profits was okay. And the plaintiff was
21 arguing that they were entitled to more because there hadn't
22 been apportionment damages, there hadn't been an apportionment
23 presented and so on. And the court says what I read, the Court
24 of Appeal. It's blessing the fact that the court didn't award
25 a hundred percent and awarded ten percent. And it's blessing

1 it in the face of a situation where not even the defendant put
2 on apportionment evidence.

3 So what I'm objecting to is allowing Malackowski to say
4 the jury can award \$8.8 billion in disgorgement where he's
5 admittedly done no allocation, no apportionment himself, and he
6 admits that there are many features, other than the infringed
7 code, that contribute to profits. That's what I'm objecting
8 to.

9 **THE COURT:** All right. I have -- wait a minute.
10 Where is the part about the --

11 **MR. VAN NEST:** The part I read? It's in -- it's on
12 page 828 near the bottom. I've got a copy from *U.S. Patent*
13 *Quarterly*. It says, "We also reject *Cream's* contention,
14 although the statute imposes upon the infringer," etc. Do you
15 see that, Your Honor?

16 **THE COURT:** Yes.

17 **MR. VAN NEST:** Right. Although -- "Nonetheless, where
18 it's clear, as it is in this case, that not all of the profits
19 are attributable to the infringing material, the copyright
20 owner is not entitled to recover all of those profits merely
21 because the infringer fails to establish with certainty the
22 portion attributable to the non-infringing elements."

23 In other words, where their expert admits that he hasn't
24 apportioned, although the entire platform, including
25 implementing code, Linux and everything else, he can't get up

1 and say 8.8 is the right number.

2 **THE COURT:** Well, why isn't it the right thing to do
3 for me to say to the jury at appropriate times, maybe right in
4 the middle of Malackowski's testimony, that even if Google said
5 nothing, the jury would have -- instead of saying the Court to
6 make some apportionment, I think we would say the jury to make
7 some apportionment. Why wouldn't that be the right thing to
8 do?

9 **MR. VAN NEST:** That would be good. That would be
10 good. But, in other words -- in other words, Mr. Malackowski
11 can't say you can award 8.8. You're going to say you've got to
12 apportion that number. The jury is required to do an
13 apportionment where it's conceded that there's various elements
14 in Android that contribute to profits. That's -- I would be
15 happy with that.

16 **THE COURT:** All right. What do you say to that?

17 **MS. HURST:** Your Honor, that is not correct, and in
18 the opinion and the evidence -- let me just address this *Cream*
19 case for a moment. Here is what happened in *Cream*.

20 The plaintiff offered an apportionment. First of all, the
21 court was sitting as the trier of fact. The court was sitting
22 as the trier of fact. The plaintiff offered an apportionment
23 of 1.37 percent of the profit. The defendant offered no
24 apportionment. The defendant had the burden of proof, utterly
25 failed in its burden of proof to offer an apportionment. Maybe

1 they made a tactical decision that they were going to go all in
2 on causation. They lost that.

3 The judge awarded less than what the plaintiff asked for.
4 And all that is happening here is that the court is affirming
5 the lesser award by the district court sitting as the trier of
6 fact. That's all that is happening here.

7 If this case stands for anything, it stands for the
8 proposition that Mr. Malackowski gets to put his \$8.8 billion
9 on because the plaintiff in that case got to put on its 1.37
10 percent.

11 **THE COURT:** Okay. He gets to put that on, but he
12 doesn't -- what Mr. Van Nest is saying is that then we have to
13 say to the jury all right, it's your duty -- because everyone
14 here does concede that the platform has many other elements
15 beyond these lines of code, and so it's the duty of the -- just
16 give it to them and quote it exactly. "In cases such as this
17 where an infringer's profits are not entirely due to the
18 infringement and the evidence suggests some division which may
19 rationally be used as a springboard, it is the duty" -- I'll
20 substitute *jury* since this is a jury trial -- "to make some
21 apportionment."

22 So then the jury would go in there and scratch their heads
23 and say *okay, how do we do this?* And then they would do
24 something rational, but maybe Mr. Van Nest has a point that you
25 can't then say well, they don't have a persuasive

1 apportionment, so we get all 8.8 billion.

2 **MS. HURST:** Right. Well, the Court has said their
3 lines of code is in so they're going to have an
4 apportionment --

5 **THE COURT:** But even in your closing argument, I'm
6 just curious to know, are you going to argue to the jury
7 something like this, *Look -- I'm now pretending to be you.*
8 *Ladies and gentlemen, you heard that lines of code thing. Even*
9 *Dr. Kearl disagrees with that. That's ridiculous, and they*
10 *don't really have anything to say by way of apportionment, and*
11 *so therefore you, the jury, are within your rights to award the*
12 *entire 8.8 billion to Oracle.*

13 **MS. HURST:** We intend to argue, Your Honor, that the
14 Java APIs were a critical element to the launch of the Android
15 platform during the crucial mobile window of opportunity.
16 Sure, they could spend a few bucks to code all --

17 **THE COURT:** You're not answering my question. Are you
18 going to -- because if you are going to -- see, I don't think
19 you can make the -- I think this case does stand for the
20 proposition that the jury has got to make some apportionment if
21 it can be rationally done on the evidence.

22 **MS. HURST:** There is an apportionment. First of all,
23 let's -- there was an apportionment to get to the 8.8 billion
24 dollars.

25 **THE COURT:** But that's to the whole Android platform,

1 of which these lines of codes are only a part.

2 **MS. HURST:** Right. But, Your Honor, when they're the
3 most important part for the business strategy, then absolutely
4 the law and the evidence -- and this is based on the evidence
5 as it comes in at the trial. If the evidence shows this was
6 the critical piece that they needed to get this thing done
7 because they only had half an ass and all the alternatives
8 sucked and there was no alternative, they could buy programmers
9 to write the other 26 percent of the code. This was the
10 critical piece they didn't have. Under those --

11 **THE COURT:** Even if that's all true, which is highly
12 doubtful, even if all that was true, there is the Linux kernel,
13 there is the Dalvik Machine, there is other things that
14 contribute here, and you just can't say that there aren't --
15 here is what the Ninth Circuit -- in cases such as this where
16 an infringer's profits are not entirely due to the
17 infringement -- to me, even if you -- you're right that this
18 was critical. But still you got to deal with Linux kernel.
19 There is no infringement there. You got to deal with Dalvik
20 Machine. There is no infringement there.

21 So I think I might have to just interrupt you in the
22 middle of your closing argument and say *Ms. Hurst is making an*
23 *argument that the law does not support and you will disregard*
24 *that argument.* Now, you can appeal me again and maybe get me
25 reversed again, but I got to make sure that, at least as I see

1 the law, the jury is going to follow the law and not be misled
2 by some extreme argument. I thought you all along were saying
3 that they could -- they could apportion, but now you're saying
4 the jury -- it's within their rights not to apportion at all?

5 **MS. HURST:** Your Honor, if the jury decides that the
6 Java APIs were the critical element in launching the Android
7 platform to its success, they absolutely can award the entire
8 value, platform contribution value to the Java APIs. That
9 would absolutely be appropriate --

10 **THE COURT:** There is no decision in the history of the
11 universe that supports what you just said.

12 **MS. HURST:** Your Honor, in *Frank* they -- I think it
13 was 75 percent of the box office, Your Honor. The total profit
14 here that we're allocating to the Java APIs of all --

15 **THE COURT:** 8.8 is not just to the APIs. The
16 8.8 billion I thought was to the entire platform -- Android
17 platform.

18 **MS. HURST:** Yes, Your Honor, and then the conclusion
19 by Mr. Malackowski is the success of the platform, the item
20 that they could not get anywhere else -- and this is comparable
21 to the hypothetical license approach on when you need to
22 bargain for that item of the platform, you have to pay for it.
23 It's the same thing.

24 And so was -- did the value of this come down to that
25 number. Mr. Malackowski can say in his judgment as an expert,

1 as he said in paragraph 285 of his report -- and this is what
2 we propose to have him testify -- "That Google's commingling
3 makes it extremely difficult to separate out the items of
4 value. I have applied my judgment as an expert in light of the
5 business circumstances that Google faced at the time to
6 determine that the Java APIs were a gating item to the
7 successful launch of the Android platform. In light of that
8 significance, it is my opinion -- it is, in my opinion,
9 appropriate to credit the infringed Java copyrights with the
10 entire value of the platform contribution. Any other
11 calculation risks allowing Google to retain a substantial
12 portion of profits generated by the infringed copyright."

13 **THE COURT:** Well, that's an eye-opening thing to me.
14 I'm shocked to hear that because I thought there had to be some
15 apportionment.

16 **MS. HURST:** Your Honor, there was --

17 **THE COURT:** That's like the entire market rule under
18 the patent law which is now completely discredited.

19 **MS. HURST:** Your Honor, there was an apportionment.
20 He apportioned away two-thirds of the advertising revenue.
21 Two-thirds.

22 **THE COURT:** No, no. That apportionment precedes what
23 we're talking about here. All you've done is get 8.8 billion
24 down to the entire Android platform and that includes the
25 Dalvik Machine, to which he has given zero. He has given zero.

1 The Linux kernel, zero. And you could make the same argument.
2 Those were essential to the success of the program, too.

3 So maybe we should allow into evidence all the stuff about
4 JDK and how easy it would have been to get around this problem
5 if they had known they were going to get sued like this. And
6 especially if he is going to say there was no way around it,
7 that this was essential, I think then the JDK sails into
8 evidence as a rebuttal to that.

9 **MS. HURST:** Your Honor, the JDK would still have to
10 have been commercially acceptable to purchasers at the time,
11 which all of the evidence shows that Google believed it was not
12 and that's why it did not adopt it --

13 **THE COURT:** It doesn't matter -- it matters, of
14 course, what Google believed. Of course that matters. But
15 that is not dispositive. Google could come back and argue
16 well, we were wrong.

17 Now, will a jury believe that? I don't know. That's why
18 we have juries and great lawyers. But Google is entitled to
19 argue we did think that or some people in the company thought
20 that and that was a problem. It was a serious problem. But
21 now with the benefit of history, we now know that was not as
22 bad a problem as we thought it was, and in fact, if we had
23 known then what we know now, that this was illegal, we would
24 have gone down the JDK route and here is why we would have done
25 it. They could make that argument.

1 **MS. HURST:** Well, that would run counter to the
2 statutory purposes of deterrence.

3 **THE COURT:** Well, wait. I'm going to agree with you
4 on the disgorgement part, that unless your guy is going to
5 start saying that it was so essential, it could not have been
6 done any other way. That would be a fraud on the jury. That's
7 not -- he can't -- he's not even qualified to make that
8 statement.

9 **MS. HURST:** Well, Your Honor, this is about the
10 evidence that comes in before Mr. Malackowski's opinion.

11 **THE COURT:** But he can -- all right.

12 **MS. HURST:** Your Honor, look, the Court absolutely
13 should instruct the jury and we'll see in our proposed
14 instructions today that it's the duty of the jury to make a
15 rational approximation of value based on the evidence that is
16 presented.

17 The question here is whether we can present the evidence.
18 Mr. Van Nest can cross-examine Mr. Malackowski all day long
19 about not giving -- assigning some portion to those lines of
20 code. Absolutely he can. He can cross-examine him all day
21 long, but it is not a defect in Mr. Malackowski's methodology.
22 It's not a defect in the reliability of his analysis, and of
23 course he's not going to testify about legal standards.

24 The Court is going to instruct the jury. And as I said,
25 we will be putting in instructions that say a reasonable and

1 rational apportionment.

2 But, Your Honor, Mr. Malackowski is entitled to testify as
3 to his opinion when it does not violate the *Daubert* standard or
4 the legal standard, which this does not. He apportioned away
5 two-thirds of the ad revenue.

6 And, by the way, Your Honor, he will also testify that
7 there were other revenue streams that were not included in this
8 that could have been included. I'll give you one very specific
9 example, Your Honor. The YouTube, whole YouTube line of
10 business generates a ton of advertising revenue on Android
11 devices. That's not included in their P&L's for Android. We
12 didn't go try and get the YouTube P&L, calculate what the
13 mobile share of that was, divide it up between desktop and
14 mobile, and then assign some portion of the YouTube
15 advertising.

16 There's all sorts of things that Mr. Malackowski didn't
17 include in his profit calculation that were highly valuable to
18 Google that they got because of Android. Just like in *Polar*
19 *Bear*, Your Honor, when the Court struck the third category
20 which was the brand value, Mr. Malackowski testified here,
21 clearly Google as an enterprise has gotten an enormous amount
22 of overall value from Android, and I didn't try to quantify or
23 include any of that.

24 Before we ever get to this 8.8 billion, Your Honor, Google
25 has enormously benefited from Android, and all of that was out.

1 **THE COURT:** I don't think you're coming to grips with
2 Mr. Van Nest's point. Most of what you just said I think I
3 agree with. However, it is going to be the duty of the jury to
4 do some apportionment from the gross number that you -- because
5 there are so many components that contribute way beyond this --
6 these lines of code. And the jury is supposed to do some
7 rational apportionment. And any argument by you or by the
8 expert that you don't have to do it or that it -- I don't know.
9 If he can't do it, the law I think requires that it be done.
10 So if -- I'm not going -- okay.

11 **MR. VAN NEST:** That's all I have, Your Honor.

12 **THE COURT:** I don't know the answer yet, but I'm -- I
13 didn't realize this is what you were arguing, that you wanted
14 all 8.8 billion and it couldn't be further subdivided.

15 **MR. VAN NEST:** Thank you, Your Honor.

16 **THE COURT:** What else do we have to cover today?

17 **MR. VAN NEST:** We have one more, I think, on Kemerer
18 that we wanted to address.

19 **THE COURT:** We need to -- do this. Just come up and
20 do a two-minute version and then we are going to take a break
21 and then we will come back. Just tell me in two minutes what
22 the issue is so I can be thinking about it.

23 **MS. ANDERSON:** Two-minute version, Your Honor,
24 Dr. Kemerer is one of Oracle's experts. We haven't moved to
25 strike most of his opinions, but there is two portions we have

1 moved to strike. One is his centrality analysis. One is his
2 stability analysis --

3 **THE COURT:** The one with the two circles that I got
4 yesterday?

5 **MS. ANDERSON:** One of them is the circle diagram, yes.
6 That's part of it. That's the centrality part.

7 **THE COURT:** The part about the squaring it, you're
8 right on that. I don't know if you even raised that, but that
9 is misleading because you can't square something. Instead of
10 ten times, make it a hundred times. So that has got to be
11 mixed. But that's a different -- maybe that's not your point.

12 **MS. ANDERSON:** The motion actually, Your Honor, is
13 premised on the fact that Dr. Kemerer, while he offers opinions
14 that are basically computer scientist, computer programming
15 opinions and he presents them as his own opinions, he lacks --
16 he lacks the expertise to offer those opinions.

17 He got those opinions from undisclosed, unnamed experts
18 who were hired by Orrick to be sort of back-shop experts to do
19 work for their -- he is basically just a mouthpiece for those
20 two portions of the opinion.

21 **THE COURT:** That's what they said about you and
22 Dr. Kim.

23 **MS. ANDERSON:** Actually, no, it's different,
24 Your Honor. Number one -- unless you want to save this for
25 next. This was absolutely ginned up for litigation work, and

1 it's one thing to present it by a testifying expert. It's
2 another thing to have an expert who lacks the expertise offer
3 it as his own opinion when he didn't even have the ability to
4 interpret, much less critique, their methodology.

5 **THE COURT:** Now I remember what it's about. We are
6 going to take our break at this point and come back in a few
7 minutes.

8 (Recess taken at 11:03 a.m.)

9 (Proceedings resumed at 11:22 a.m.)

10 **THE COURT:** Back to work. Please be seated. Kemerer.

11 **MS. ANDERSON:** Yes, Your Honor.

12 **THE COURT:** Make your argument.

13 **MS. ANDERSON:** In a nutshell, Your Honor, Dr. Kemerer
14 is offered as an expert in this case on a number of opinions.
15 The only two being challenged here are his centrality and
16 stability analyses.

17 The opinions that he renders here are taken in total from
18 work done by other experts who were never disclosed in expert
19 disclosure process. They weren't named. Their credentials
20 weren't provided.

21 Generally speaking, we are not challenging other Oracle
22 experts who happen to also rely on this same group of back-room
23 experts hired by Orrick, but the problem with Dr. Kemerer in
24 these two opinions is he lacks the expertise to even supervise
25 them.

1 He is basically offering as a mouthpiece technical
2 computer science opinions about the stability of APIs over time
3 based on a script and analysis that he did not conduct, that he
4 couldn't even comment on whether the script was proper because
5 he doesn't do programming. He doesn't understand it and he
6 couldn't tell us much about it.

7 So he relied on that work. And he doesn't have the
8 expertise to supervise it. So as we explained in our papers,
9 in cases like the *Dura Auto* case, it's one thing for an expert
10 to supervise work of others, provide input, data collection,
11 basic things, when they have the expertise to supervise it.
12 This gentleman lacks expertise on these two areas. Both of
13 them are computer assessment, both of them involve --

14 **THE COURT:** I thought he was a computer scientist.

15 **MS. ANDERSON:** He is not a computer programmer. He,
16 generally speaking, seems to be a person who renders opinions
17 about the market and he has knowledge in that area, but these
18 opinions that we're challenging are the technical analyses that
19 are reflected in his report on whether or not certain APIs were
20 stable over time, and we're also challenging his computer
21 science technological evaluation done by this outside group of
22 experts applying a PageRank analysis that he uses to opine that
23 the APIs are central to the platform.

24 **THE COURT:** I thought Ms. Hurst told me that the
25 PageRank thing was done by him.

1 **MS. ANDERSON:** No. He says he directed these outside
2 folks to do the work. And, again, oftentimes experts do direct
3 others to do work, but it's when they have the expertise to
4 direct it. He doesn't know anything about PageRank analysis in
5 any level of detail. He couldn't supervise the computing work
6 involved in conducting it. He never used PageRank or Network
7 Acts in any other study before.

8 This is a gentleman who has --

9 **THE COURT:** All right. Okay. Hang on a minute.
10 What is his expertise again?

11 **MS. ANDERSON:** Well --

12 **THE COURT:** You said he was just a professional
13 testifying expert?

14 **MS. ANDERSON:** No, I did not say that, Your Honor.

15 **THE COURT:** What is he then? How close can we get to
16 him having computer skills?

17 **MS. ANDERSON:** He admitted in deposition multiple
18 times he has -- has no expertise in computer programming,
19 period. He does not have it. He could -- he could -- I asked
20 him, because I was surprised to learn during his deposition
21 that he couldn't perform computer programming, and I said, you
22 know, "Do you have expertise in computer programming?" "No."
23 And he basically said he could learn it if someone taught him.
24 Well, anybody could learn it if someone taught them. That's
25 not expertise.

1 **THE COURT:** But does he have experience in evaluating
2 applications in apps in the market?

3 **MS. ANDERSON:** He certainly has talked about
4 qualitative kinds of things, analyzing markets. That's
5 different. We're not challenging that. What we're
6 challenging, these are technical opinions embedded in a
7 broader, more qualitative -- you know, talking about the market
8 for apps and the like, opinion.

9 **THE COURT:** Get me Mr. Kemerer's report. All right.
10 So did you then try to go behind Mr. Kemerer and get to
11 the source of the study on the PageRank?

12 **MS. ANDERSON:** Well, we conducted discovery. We asked
13 these questions in deposition. We found out that he relied on
14 this external group of folks. He couldn't even name them.

15 **THE COURT:** He couldn't name them?

16 **MS. ANDERSON:** No. I asked who were the individuals
17 that you say you were directed. I think he named one or two of
18 them. He couldn't be sure who did what. He didn't know how
19 many there were. They're with, I believe it's, Keystone. Is
20 that the name of the organization? They're with an
21 organization named Keystone that was hired by Orrick.

22 He couldn't describe to me the expertise of people he knew
23 specifically performed this work. And this is the same group
24 that's performing the back-room work for other experts that
25 Oracle used. Basically they're all relying on this undisclosed

1 set of experts.

2 Now, again, we didn't challenge it for other experts where
3 at least the expert involved who was supposedly directing the
4 work had expertise in the area.

5 **THE COURT:** All right. I have got the gigantic
6 Kemerer report. What page do I look at?

7 **MS. ANDERSON:** It's probably helpful to start with the
8 Table of Contents there. If you open up the first page, you
9 see the Table of Contents there. There is a lot of opinions
10 set forth that are a broadbrush discussion of what he thinks is
11 at issue and what he thinks were various market effects and the
12 like.

13 But the part that matters for this motion is primarily
14 discussed and disclosed at page 30 where he talks about the,
15 quote, analysis of API package stability, unquote. That's
16 where he lays out the technical computer assessments done by
17 folks that he claims he directed. That's the stability
18 analysis.

19 And then the PageRank analysis starts on page 44,
20 paragraph 149. Again, that's where he lays out technological
21 results of computer studies done by this outside group.

22 **THE COURT:** Okay. Show me where the outside group --
23 let's stick with PageRank for a minute.

24 **MS. ANDERSON:** That's page 144.

25 **THE COURT:** I got 43.

1 **MS. ANDERSON:** 43. You could start there, too.

2 **THE COURT:** Where does he refer to this shadowy group?

3 **MS. ANDERSON:** Well, the first time he says it is
4 above in regard to stability. I'm not seeing a reference. I
5 don't even know that he talks about it here. Let me just see.
6 I don't see him talking about the outside group in the section
7 about PageRank yet. He --

8 **THE COURT:** How did you learn that he had not done the
9 work himself?

10 **MS. ANDERSON:** By deposing him, Your Honor. When we
11 deposed him, I asked him first about stability, and in the
12 stability section, he says that -- he says, quote, in order to
13 determine the level to which this is true, my research
14 assistants, under my direction, conducted an analysis of the
15 changed behavior of API packages in Android.

16 That is paragraph 96 of his report. And that caused me to
17 ask him who are the folks you directed -- how do you know what
18 they did to try to figure out if he had the ability to direct
19 that work. And once asking those questions and realizing that
20 he lacked any of the skills involved in doing the work that
21 resulted in this particular part of his opinion, I then asked
22 him the same questions about PageRank and he answered in the
23 same way. He does not -- he is not a person who does work in
24 computer analysis. He does --

25 **THE COURT:** All right. So did you ever get around to

1 deposing the people in the shadowy -- what was the name of that
2 group?

3 **MS. ANDERSON:** Keystone.

4 **THE COURT:** Did you ever go to Keystone --

5 **MS. ANDERSON:** No. They were never disclosed in
6 expert testimony. They were never disclosed as witnesses.
7 They have not been named. Their documents, you know, in terms
8 of their background was never provided to us, so, no, we do
9 not. This is sort of an undisclosed external opinion that they
10 are trying to shoehorn in as if it were the opinion of
11 Dr. Kemerer.

12 **THE COURT:** Let me hear from the other side. What do
13 you say to that problem?

14 **MR. RAMSEY:** All right. Thank you, Your Honor. Gabe
15 Ramsey for Oracle.

16 First of all, let me start with Professor Kemerer, who he
17 is. Disagree with counsel's characterization of his expertise
18 and what he brings to this case.

19 Professor Kemerer is a professor at the business school at
20 the University of Pittsburgh, and in the computer engineering,
21 computer science department, he lectures at Carnegie Mellon.
22 For 30 years his area of expertise has been software
23 measurement and modeling, and I would be happy to hand the
24 Court his CV if that would be helpful. I'm going to walk
25 through it a little bit. But the major point is this --

1 **THE COURT:** Where is his CV in here?

2 **MR. RAMSEY:** I believe it's Appendix A or B to his
3 initial report. It's Appendix B, I believe.

4 **THE COURT:** I think I see it.

5 What is it that qualifies him to do a PageRank type thing?

6 **MR. RAMSEY:** Right. Why don't we turn to -- it should
7 be page 69 of his CV.

8 **THE COURT:** I don't have it. It's not numbered that
9 way on what I have.

10 **MR. RAMSEY:** All right. Well, it's the second page of
11 what I'm -- actually the third page of what I'm looking at.

12 In the mid 1990s -- here is the punch line. In the mid
13 1990s, right when object-oriented programming was becoming most
14 popular, Professor Kemerer came up with a set of metrics to
15 measure the value of different pieces of object-oriented
16 programs. And the reason for this is there became a need to
17 measure things like how are we going to maintain this software
18 over time? What is the value of this piece of the software and
19 that piece of the software? How are we going to decide where
20 to invest in maintaining this software and managing it?

21 And so he -- he, with a research assistant, came up with a
22 set of metrics called the CK Metrics that looks at things that
23 are very similar to this case. I want to be clear, he didn't
24 apply that set of metrics in this case. What I'm trying to
25 explain to Your Honor is why this particular expert is expert

1 in measuring the value of the API packages.

2 So this is mid 1990s. The name of the paper was *A Metrics*
3 *Suite for Object-Oriented Design*. These are exactly the things
4 that are at issue in this case. The design of the API
5 packages, the SSO, the declaring code and how you value that,
6 how substantial is it, how valuable is it for the damages
7 purposes.

8 And what we've got, we've got this line-counting exercise
9 that Dr. Astrachan puts forward. We heard about that this
10 morning. Dr. Kemerer is offering alternative perspectives on
11 the value of the SSO and the value of the declaring code.

12 So starting in the mid 1990s, he published this paper.
13 It's the top -- one of the top ten most cited papers in his
14 research area, which is information systems. All right?

15 So it's true, he doesn't go to work every day and write
16 programs. But that's not the expertise we're offering him for,
17 and I think that's the disconnect between -- certainly
18 criticism I have of the plaintiff's argument. We're the
19 plaintiff -- the defendant's argument, is that they
20 mischaracterize his expertise.

21 The suggestion is this guy has to be going to work every
22 day writing computer programs, engineering in Java and Android,
23 using PHP and R, which are the languages of these scripts that
24 were just mere data collection scripts, in order to do his
25 work, and it's just not so. And the reason is because he spent

1 30 years coming up with empirical models to look at
2 object-oriented software and kind of from a -- almost an
3 economic and business point of view, measure its attributes and
4 say how valuable it is. So --

5 **THE COURT:** Yes, but let's say he's got some
6 familiar -- but this -- this stability and -- what was the
7 other thing?

8 **MR. RAMSEY:** Centrality.

9 **THE COURT:** Centrality. That is pretty -- may be
10 important here, and why shouldn't the people who actually did
11 the work come in and tell us how they did it?

12 **MR. RAMSEY:** So let me make something else clear. How
13 the work was done was laid plain in the report. He attached
14 every single script. He referred and pointed to every single
15 data source that was taken in. He pointed to every single
16 program that was applied to the data source. And he described
17 and we produced the outputs.

18 In Dr. Astrachan's rebuttal report, not a peep about any
19 of these things. He quibbles around the edges with well, on
20 the centrality, you should have weighted particular classes in
21 some -- in some really, frankly, undisclosed way. That is his
22 quibble with that methodology. Fine. It's an argument. It's
23 a fair argument. The experts will debate it.

24 On stability, without any cited papers -- by the way, on
25 stability he says well, you shouldn't have counted up the

1 method declaration changes in this dimension or that dimension,
2 without citing any research. It's just his opinion. We're not
3 going to fight about it. He can show up and say that. There
4 is going to be a debate.

5 So those are the fights that Dr. Astrachan came back with.
6 He didn't say there is something wrong with the scripts. He
7 didn't say there was something wrong with the way the scripts
8 parse the data. And by the way, the data in this case is the
9 Java source code, the Android source code and the API
10 documentation for each, which have -- are well-known in this
11 case. Those are the inputs to the scripts. The scripts parse
12 them. And they count up things like did this method
13 declaration change in this class between Version -- Version 1
14 and Version 2. And it's just counting. It's just parsing the
15 text and saying did that text change? And if so, tab --
16 tabulate it up and dump it in a massive, basically,
17 spreadsheet. It becomes this big volume of data.

18 Now, Dr. Kemerer has the expertise to understand that's
19 what he needed to do. He found papers published in the IEEE
20 and the ACM, and he drew his methodology from those based on
21 his 30 years of experience. And then once he determined the
22 methodology, the question was well, how do you parse through
23 those declarations and count up the changes? So he could have
24 sat there and by hand gone through and said, *Well, you know,*
25 *between API 1 and API 2, two different versions, I'm going to*

1 *visually inspect the change between this method declaration*
2 *from one to the next, and it would take him three, four years*
3 *probably. It's just that kind of process.*

4 So instead, he went to his research team. It's not
5 Orrick's research time. By the way, there was some comments
6 making it seem like these experts are living at Orrick,
7 Herrington & Sutcliffe or were over at Oracle's headquarters in
8 Redwood Shores. It's not so. Dr. Kemerer works with this
9 outfit Keystone. They are his support team.

10 So he went to them and he said *Folks, could you create for*
11 *me a script that does the counting,* and he had a conversation
12 with his team, and they determined to use the PHP scripting
13 language and the R scripting language to do the counting. So
14 he -- nobody had to do it by hand. And it's true, he does not
15 know how to actually construct that script to parse through and
16 say did the declaration change from 1 to 2, just because he
17 doesn't know PHP and R, but he knew how to instruct his team
18 and he did so, and we put the script and the data sources out
19 there and the results and there was no complaint. Not one from
20 Dr. Astrachan.

21 **THE COURT:** Hold that thought.

22 Let me hear, Ms. Anderson --

23 **MS. ANDERSON:** Yes, Your Honor?

24 **THE COURT:** Wait, wait, wait. The important point I
25 just heard that I want you to comment on is that Kemerer

1 attached to his report the script and all the details and so
2 that your expert could look at it and if he had -- if the
3 Keystone people had misapplied it in some way, your expert
4 would have been able to find the mistake.

5 **MS. ANDERSON:** Well, that's an interesting point,
6 Your Honor, because in some ways that is exactly what I'm
7 saying here.

8 This witness couldn't even explain the scripts that are
9 essentially his opinion and their methodology. So if you take
10 a look at the report and look at the appendices -- and I don't
11 know if Your Honor has it paginated the same way we do, but if
12 you can take a look in the report back at page 110, which is at
13 the bottom --

14 **THE COURT:** Yes.

15 **MS. ANDERSON:** -- you see the first of these scripts.
16 There is one that starts at page 10. There is another that
17 starts at page 161, and there are other analyses in these
18 appendices that are salient to this motion, but these are two
19 examples. These are the scripts that are essentially half the
20 opinion. Half the opinion on stability is create a parser
21 script that will accurately and reliably assess this question
22 of stability, yet this witness, he didn't produce these. He
23 doesn't understand them. He couldn't interpret them for me.
24 When I asked him questions about it, he reiterated that he does
25 not do programming and he doesn't understand them.

1 And that is the essence of the opinion. It's not that --
2 it's not that there is another witness who has technological
3 expertise who is testifying in the case who does the technical
4 work and then this witness renders opinions on top of it
5 relying on the other disclosed expert. This is a testifying
6 expert who's coming to court and saying these are his opinions,
7 yet he can't even opine on their methodology. We've quoted his
8 deposition testimony in our papers. This witness doesn't know
9 what these scripts mean, much less whether they do what he
10 thinks they did.

11 That's not mere data collection. Oracle would like to
12 argue that that's just mere data collection. It's not. When
13 you have specially-prepared scripts for purposes of rendering a
14 technical opinion, yet you, the person who claims to have
15 directed the work, can't even say what they mean, that's a
16 problem. Yes, we got a copy of what these other undisclosed
17 folks did, but that doesn't satisfy the requirements of Rule
18 702 and 703 and expert disclosure.

19 If a witness is going to come in and say he's an expert
20 and offer an expert opinion and all that entails for a jury,
21 yet he didn't do this and doesn't know how it was done, that's
22 a problem.

23 **THE COURT:** Well, but I have two questions for you.
24 But you have an expert who could look at this and tell me if it
25 was done incorrectly.

1 **MS. ANDERSON:** We have disagreed with Dr. Kemerer's
2 opinions in various ways, but that should not get Oracle off
3 the hook for having proffered a witness in an area in which he
4 entirely lacks expertise. That's the problem.

5 **THE COURT:** All right. Well, so basically you're
6 saying you agree that somebody did it right, but he doesn't
7 know how to explain that it was done right so they can't use
8 that witness.

9 **MS. ANDERSON:** No. We don't agree he got it right,
10 and this is another subject we addressed in our reply. We
11 disagree with their characterization that we somehow throw our
12 hands up and agree that they did this right. To the extent we
13 can understand it, they can didn't disclose everything here.
14 They disclosed these parsers scripts. To the extent we
15 understand what they did, we have disagreed and we have noted
16 in our reply where we disagreed.

17 **THE COURT:** You said something important. What do you
18 mean they did not disclose all the scripts?

19 **MS. ANDERSON:** We don't know. It's difficult to know
20 what is the full extent of what went on here when the witness
21 proffered in depo to explain this opinion doesn't even know
22 what this is. So I cannot speak for the unnamed folks. And,
23 remember, talking about these folks as Dr. Kemerer's team is
24 really being very generous because he doesn't even know who
25 most of them are.

1 But to the extent that he relied on folks, stuff that they
2 did, we don't know what those folks did, what they were
3 thinking, how they did or did not tweak these. He doesn't know
4 and so we don't know.

5 **THE COURT:** Look, let me give you a different -- it's
6 a different question. But my memory of it is that from other
7 cases, that you can have an expert, let's say, in some subject
8 of -- let's say real estate, commercial buildings, and in the
9 course of doing their work, there's a specific topic that they
10 are not an expert on and so they subcontract out that problem
11 to a different expert who is, and they don't have the ability
12 to supervise that new expert because they themselves -- that's
13 the reason they need them, is that they don't have the
14 expertise, but they say to them *I want you to tell me what the*
15 *rental rates were in San Francisco for the last five years, and*
16 *then I'll factor that information in to the rest of my report.*
17 So the other person goes out, does that homework. And then
18 reports back.

19 All right. So then you -- you would have exactly the
20 problem that you got. You don't -- somebody who is not
21 qualified to supervise the work, yet wants the bottom-line
22 conclusions to be used, but at least they're frank with the
23 jury and they say, *I didn't do this work. I just relied on*
24 *someone else to do the work.* And normally, normally counsel
25 would call both of them as witnesses, as experts, not just one.

1 But the -- if they decide not to call the subcontractor, then
2 you would get into a Rule 403 problem of whether or not one
3 expert can subcontract out the work in that manner.

4 But --

5 **MS. ANDERSON:** Well --

6 **THE COURT:** I'm thinking out loud, but that's --
7 that's the kind of problem I think we have here. And it does
8 happen from time to time that an expert will rely upon some
9 other expert for -- that they are not able to supervise for
10 some part of their homework.

11 **MS. ANDERSON:** Well, I think that the *Dura* case,
12 Your Honor, which we cited in our papers really speaks to this.
13 It really matters here whether or not the work that is, as you
14 put it, being subcontracted out, is, A, being subcontracted out
15 to someone who is disclosed as an expert -- not the case here;
16 B, matters whether or not it's being subcontracted out to
17 someone who is doing truly non-expertise data collection.
18 That's different. Here we have a situation where we know this
19 witness lacks the expertise to render these portions of his
20 opinions. He admits it. It's not debatable. We know Oracle
21 has other witnesses who have that expertise. They could have
22 done it. They did not do it. They did not disclose them on
23 that.

24 And that's the scenario that *Dura* says, you know, no
25 matter how well-credentialed a scientist may be, you don't get

1 to be a mouthpiece for a scientist in a different specialty,
2 and that's the problem here. And we have -- you know, it's
3 made worse by the fact that this witness doesn't even know the
4 credentials or -- much less the names of the people that he's
5 just kind of pawning this work off on.

6 That's not living up to the standards of 702 and 703. You
7 want reliable expert opinion testimony given the weight that it
8 can be given by a jury. And when this witness doesn't have the
9 expertise to do it and doesn't fit into the other -- the
10 exceptions, it should not be permitted.

11 **THE COURT:** All right. Oracle gets the last word.

12 **MR. RAMSEY:** May I respond? Thank you.

13 Dr. Kemerer does have the expertise to supervise. I
14 mentioned 30 years of experience of treating these kind of
15 models and defining them, and in this case in his report what
16 he lays out here are the features in the stability analysis
17 that I want measured based on my expertise. In the -- not his
18 first report -- it's in his first report in a footnote. I
19 forget the number. He lays out here all the types of method
20 declaration parameters that I would like you to measure the
21 change of over time. That if I were sitting with a copyright
22 copy of the API for one version and the next and paper in front
23 of me, I would be counting up. These are the things I would be
24 looking for. He defined the methodology. He informed his
25 team, and his team wrote a script --

1 **THE COURT:** You said it was his team, but counsel says
2 it's not his team.

3 **MR. RAMSEY:** This is lawyer argument, Sir. In his
4 deposition, he testified that he worked with -- his primary
5 associate was named Rohit Chatterjee. Rohit Chatterjee is a
6 principal at Keystone --

7 **THE COURT:** Why didn't that person come in and testify
8 as your expert?

9 **MR. RAMSEY:** There was no -- you know, if
10 Dr. Astrachan had come back and said there is some problem with
11 this script --

12 **THE COURT:** But now you're trying to put the burden on
13 them. Counsel is correct that you do have a preliminary burden
14 to satisfy and you can't just come back and say well, we don't
15 have to satisfy because they didn't complain about it. You do
16 have a preliminary foundational hurdle to get past.

17 **MR. RAMSEY:** I was just getting there, Your Honor.
18 The major difference between the *Dura* case and many other
19 points that counsel is making is that in his report,
20 Dr. Kemerer didn't just rely on the scripts. After he got the
21 output, he -- now, he didn't go through every single
22 declaration, but what he began to manually verify in these
23 outputs were those method declaration changes actually
24 reflected in the API documentation.

25 So he wanted -- I mean, he has been through this for 30

1 years. He wanted to give himself confidence that the scripts
2 that he instructed his team to make were actually -- were
3 actually accurate. And he went through that process so that he
4 could testify *I believe that the results of those scripts are*
5 *reliable. I confirm them.*

6 **THE COURT:** If he confirmed them, how come he needed
7 to do a script at all if he did it all manually?

8 **MR. RAMSEY:** I'm saying he didn't look at every single
9 one.

10 **THE COURT:** What percentage did he look at?

11 **MR. RAMSEY:** I can't give you the exact number.

12 **THE COURT:** One percent?

13 **MR. RAMSEY:** I think it was probably greater than
14 that, Your Honor. I don't know the exact percentage.

15 **THE COURT:** Enough to be statistically significant or
16 is it just some sort of horseback -- horseback spot check?

17 **MR. RAMSEY:** Well, so, the other --

18 **THE COURT:** I wish all you lawyers wouldn't do this.
19 You know, this does have a spoonfeed sound to it. There is
20 that element, and I hate spoonfeeding of experts. They're so
21 abused to begin with.

22 **MR. RAMSEY:** I understand, Your Honor. This is not a
23 spoonfeeding situation. This is a situation where the expert
24 went to -- spoonfeeding -- this is not a situation where the
25 client is giving forced data to the expert and saying, *Please*

1 *adopt this view of the world. The expert said, These are the*
2 *things I'd like to --*

3 **THE COURT:** But Oracle -- not Oracle. Orrick had
4 other tentacles into the Keystone people. No?

5 **MR. RAMSEY:** No. This is just like Dr. Leonard.
6 Dr. Leonard works with Edgeworth Economics. He has got a team
7 there. Dr. Kemerer works with Keystone. He has a team there.

8 **THE COURT:** Kemerer is the only connection in this
9 entire case to Keystone?

10 **MR. RAMSEY:** Dr. Schmidt and Dr. Jaffe as well. There
11 are these expert shops out there --

12 **THE COURT:** So there is a number of tentacles. Then
13 maybe they got -- maybe they got some kind of incentive to skew
14 the numbers in a way that we can't -- we'll never uncover.

15 **MR. RAMSEY:** I understand the concern, Your Honor.
16 There is no indication of that at all. What there is an
17 indication of is that the scripts were put out there in the
18 report very overtly.

19 **THE COURT:** What do you say to Ms. Anderson's point
20 that she can't tell whether all the scripts are here or not or
21 whether all of the work that was done has been attached? There
22 is a lot of pages attached here, but was that absolutely every
23 scrap of paper that was done at Keystone?

24 **MR. RAMSEY:** Yes. These were the -- all the scripts
25 at Keystone.

1 **THE COURT:** No. Every scrap of paper --

2 **MR. RAMSEY:** Yes. The work papers were produced
3 separately so the outputs of the scripts were produced as well
4 in a production.

5 **THE COURT:** What do you say to that?

6 **MS. ANDERSON:** There is no way for us to know that
7 given --

8 **THE COURT:** Counsel just -- at some point can't I take
9 the lawyer's word for something in this case?

10 **MS. ANDERSON:** Certainly. I thought you were asking
11 me to confirm whether that was true. I can't confirm it
12 because we don't even know --

13 **THE COURT:** Do you have any reason to doubt it?

14 **MS. ANDERSON:** Well, all I can say, Your Honor, is the
15 reason that we're here and the reason we have this problem is
16 the folks who did this work should have been disclosed if
17 Oracle wanted to rely upon them in this case, and they were
18 not. That's why we have this problem now.

19 **THE COURT:** But on the assumption that everything --
20 let's just -- bear with me.

21 **MS. ANDERSON:** Yes.

22 **THE COURT:** Let's assume, for the sake of argument,
23 that everything was produced. Did your expert look at all this
24 and try to duplicate it and see if he could find any errors?

25 **MS. ANDERSON:** Our expert looked at it and disagreed

1 with aspects of it, and we've identified where in our reports
2 we've done that. That still, though, Your Honor, doesn't
3 address --

4 **THE COURT:** Well, how big a problem? Were they major
5 frauds upon the Court? Were they minor disputes around the
6 edges? How big a dispute did you have?

7 **MS. ANDERSON:** Well, I mean, there are a number of
8 problems with the stability -- the stability analysis and the
9 centrality analysis are different. We think, based on what we
10 were -- what we received as part of this report, that they have
11 mis -- they do not have an accurate listing of API packages
12 that they've studied, and I asked Dr. Kemerer during
13 deposition, *Why do you have these 200 listed here? Can you*
14 *explain?* He could not. He couldn't even read script around it
15 much less tell me why certain API packages had been listed
16 there and what decisions were made for that.

17 So I don't know. We are left in a situation where we
18 can't get questions answered because the person offering the
19 opinion didn't do it. And so we don't agree. You know, is it
20 true that some Java APIs maybe didn't change over a certain
21 period of time? Sure. I'm sure that's true. But the ultimate
22 opinions that we see offered by Dr. Kemerer in this case, we
23 don't agree with, especially because there are other issues,
24 including backward compatibility, that render their arguments
25 null, in our view, but that's a whole nother thing.

1 **THE COURT:** You could do the same stability and
2 centrality test yourself.

3 **MS. ANDERSON:** Except, Your Honor --

4 **THE COURT:** It would be easy for you. You got all the
5 versions. You could run it through your own machine and do
6 exactly what they purport to have done.

7 **MS. ANDERSON:** And one thing we did critique
8 Dr. Kemerer on is that in his opening report, he included in
9 his study API packages that, as Your Honor has noted, some of
10 them, even the Federal Circuit noted, may well be, by Oracle's
11 admission, part of the language --

12 **THE COURT:** But they have a smaller circle that takes
13 them out.

14 **MS. ANDERSON:** Right. He included all of them in his
15 opening report and on reply he tried to fix that.

16 There are a lot of issues here. I guess the fundamental
17 point is for a witness to take the stand and say they're an
18 expert in a field and offer an opinion that will carry the
19 weight that expert opinions will carry when he doesn't have any
20 knowledge about how this happened or how it was prepared is
21 prejudicial and it's not proper under the rules and it wasn't
22 disclosed and we submit it should be excluded.

23 And there was one -- I know Your Honor -- we're leaving in
24 five minutes. I wanted to the mention, although you may not
25 have time to hear argument on it, there was a last part of this

1 motion just to raise for the Court to be thinking about.

2 Dr. Kemerer uses the term *API* in his opinions. He uses
3 the same term, but he means them to mean different things, and
4 we are very concerned it will be prejudicial and confusing to
5 the jury. And here in a nutshell is why, just for the Court to
6 consider.

7 As the Court is aware, the APIs at issue in this case that
8 are -- that are the copyrighted work at issue that they claim
9 is infringed is the declarations and the SSO. Dr. Kemerer,
10 when I asked him in deposition, *When you use the word API in*
11 *your reports, what do you mean? How are you using that term?*
12 For purposes of his opening opinions, including talking about
13 stability and all these other things, he is talking about
14 declarations and SSO. He's cabining his opinions to the
15 things, the type of stuff that is at issue in the case. But he
16 says, *I use a very different definition for my reply opinions,*
17 and I asked him what does he mean by that, and he basically
18 said, *Well, for my reply opinions, I'm using a much broader*
19 *definition.* And that definition could include, you know,
20 software is a service concepts, it could include implementing
21 code, it could include just generally speaking APIs, but he
22 uses the same term.

23 And the reason he does this is because when he's talking
24 in his reply report about APIs, the section, he is rendering an
25 opinion that says hey, it's unreasonable for Google to come to

1 court and say that it's a fair use to use declarations and SSO.
2 It's unreasonable for Google to say that everyone in the
3 industry knew these were fair and free to use. It's
4 unreasonable because look at the API economy. Lots of people
5 treat that as proprietary and they demand licensing fees and
6 it's very valuable, and he's saying so it's very unreasonable
7 for Google to have concluded that these declarations and SSO,
8 which he calls APIs, are fair use when everyone else in the
9 world is treating APIs as valuable. But he's using the term
10 totally differently on reply in that aspect. He's including it
11 could include implementing code, it could include software as a
12 service, private APIs where people have a whole bunch of
13 proprietary valuable things that are in no way limited to
14 declarations and SSO.

15 And he's trying to say hey, jury, look, you know, they're
16 treating this other stuff as proprietary and valuable; so
17 therefore Google was unfair in using these declarations and
18 SSO.

19 We believe that's very misleading to the jury because it's
20 inviting the jury to assume he's talking about the same thing.
21 He uses the same word. And we wanted to flag that for the
22 Court. We are very concerned under 403, and we feel that his
23 opinions about that aspect where he is trying to say oh, you
24 know, everybody is treating this as valuable proprietary secret
25 stuff, that should be excluded, it's confusing and misleading.

1 **THE COURT:** One of the -- all right. We got one
2 minute left. I will give you the last minute.

3 **MR. RAMSEY:** Real brief response.

4 First on the empirical analysis, Rule 703 cases that we
5 cited are very factually similar to this case. The *McReynolds*
6 case. The *Tietsworth* case in the Northern District. Judge
7 Fogel issued that opinion. Both involved underlying data
8 analysis done by support staff. The *McReynolds* case is
9 particularly relevant. This was -- a statistician is the
10 primary expert, with an empirical discipline much like
11 Dr. Kemerer. And underlying his work, he had support staff
12 create and generate a program to carry out the statistical --
13 part of the statistical analysis, and he testified he was
14 the -- the primary expert testified he was unfamiliar with the
15 underlying statistical programming language.

16 He provided direction and his team then took the reins and
17 created that program, and the court said Rule 703 allows that.
18 There wasn't even any indication in that case that the expert
19 had verified the results. There is in this case.

20 I just direct -- I understand we are short on time. I
21 will turn to the next point, but just direct the Court's
22 attention back to the law. That these factual scenarios that
23 are in our case fit very closely the Rule 703 cases we've cited
24 that -- in which this type of reliance and assistance for data
25 collection has been permitted.

1 On the API issue, basically what's happened here is
2 Dr. Astrachan, their expert, and another expert, Dr. Katell,
3 have come in with reports where they say -- frankly do exactly
4 what counsel has just complained about. The pitch is this.
5 Dr. Astrachan and Katell say there are these things called APIs
6 that existed for a long time. Look, they existed over here in
7 the sequel database worked. They existed over here in Linux.
8 They existed over in the IBM BIOS context. Everybody has
9 always understood, the developer on the street has understood
10 allegedly that APIs are free and open. Anybody can do what
11 they want with them. All right. This is -- it's not even
12 associated with any fair use factor. This is thematics, sort
13 of atmospherics.

14 So faced with those opinions, we asked Dr. Kemerer to use
15 his business ecosystems background, his business school
16 analysis, take a survey of well, is that so? And what he found
17 was there are lots of APIs in a whole bunch of different
18 contexts and not just -- and I'm not just talking about
19 implementing code. I'm talking about declaring code in
20 particular where there are contracts and limitations on their
21 copying and use, just like is being asserted in this case. And
22 it's not so uncommon a notion among the developer in the
23 street.

24 So these opinions are offered to rebut a detour that
25 Dr. Astrachan and Dr. Katell have made into all these other

1 APIs. Dr. Kemerer is entitled to rebut that and say well,
2 gosh, I can come up with a whole bunch of examples of declaring
3 code and APIs. And let me be real specific. The best example
4 of control over declaring code, particularly in Dr. Kemerer's
5 report, is when he -- he talks about the contract for the
6 Google Ad Words API. I won't -- I forget all the details, but
7 it's basically the interface to Google's ad platform, and what
8 that contract says -- it says you won't use our API in all
9 these particular ways. We exert control over it. It defines
10 API by pointing to a specification document, just like the one
11 in this case. So we looked at the specification document. And
12 we found that there's brief lines of declarations that invoke a
13 functionality.

14 So the point here is even Google itself exerts the type of
15 control it's resisting in this case on APIs. And we do that in
16 rebuttal. If the other side would withdraw those -- this
17 detour into other APIs with their experts, we might have a
18 conversation. That's something I would put out there, but
19 they've not. So we -- Dr. Kemerer is simply responding.

20 And that's it, Your Honor.

21 **THE COURT:** What is the name of the person who did the
22 work at Keystone on coming up with stability and centrality?

23 **MR. RAMSEY:** The gentleman's name is Rohit Chatterjee,
24 R-O-H-I-T --

25 **THE COURT:** If he were deposed, would he know the

1 answer to all these questions?

2 **MR. RAMSEY:** He certainly would, Your Honor.

3 **THE COURT:** What is today? Today is number 20. I'm
4 going to order that within one week, you give the other side a
5 full day of testimony with that guy.

6 **MR. RAMSEY:** Very well, Your Honor.

7 **THE COURT:** And then if some dramatic thing comes out
8 of that, maybe we will exclude this testimony and maybe we will
9 allow this testimony, but I want Google to take the deposition
10 so that you can test out the underlying basis for the study.

11 **MS. ANDERSON:** Thank you, Your Honor.

12 **MR. RAMSEY:** Very well.

13 **THE COURT:** Meanwhile, I'm not going to rule on this
14 motion yet. I might -- I will later, but not right now. I
15 have a different, though -- this API point, I sent out a
16 revised set of fair use instructions for more comment, and in
17 that, I asked you to meet and confer and come up with a page or
18 two pages, something that we could carefully explain to the
19 jury the exact thing that what -- that's copyrighted and is an
20 issue here, and part of the reason I do that is because of the
21 ambiguity of terms like *API*. And so that the -- Oracle gets
22 the full benefit of what the Federal Circuit said was
23 copyrightable and Google gets the benefit of what is not
24 copyrightable so that the jury won't get some misunderstanding
25 as to what we're -- we're fighting over here.

1 So I want you to do that. I want -- and I -- and help me
2 out a little bit. Agree on something, would you? Just agree
3 on a statement we can give to the jury about the law on that
4 point.

5 In that connection, API, I think you could roll in a
6 statement about what is an API and how the term is used and the
7 witnesses may use it in broad terms, narrow terms, but always
8 keep in mind that the copyrighted material that's at issue in
9 this case is declaring lines of code and SSO and explain what
10 that means.

11 All right. If I decided to have you back -- I don't know
12 if I can do this on next Tuesday for more arguments, Tuesday
13 morning at 8:00 -- I'm not sure I have that even available. I
14 think I do. Would you be able to do that as well as on
15 Wednesday? Not -- not Dr. Kearl. I know he shouldn't be
16 required to come back here for that.

17 **MR. COOPER:** Dr. Kearl will be back next Wednesday, as
18 I will be, but not on Tuesday.

19 **THE COURT:** So I would select things that we won't
20 need him for for that day.

21 How about the rest of you?

22 **MS. ANDERSON:** Yes, Your Honor.

23 **MR. VAN NEST:** We may not all be available,
24 Your Honor, but as you've pointed out before, that may not
25 matter to the Court.

1 **THE COURT:** It may not matter because you have got so
2 many others, there is redundancy, built in redundancy.

3 **MR. VAN NEST:** I don't call it *redundancy*, but it is
4 comprehensive, Your Honor.

5 **THE COURT:** So we are coming -- this is what day of
6 the week?

7 **MR. VAN NEST:** Wednesday, Your Honor.

8 **THE COURT:** There is so much to do. And I believe it
9 will be done and -- but you may not get the answers until very
10 close to the start time.

11 I did get the comments that -- on the jury thing, and I'm
12 inclined to adopt all of your suggestions. Oracle had very
13 few. And I'm inclined to adopt the -- both of your
14 suggestions. So if any of you have heartburn from what the
15 other side suggested, then I want you to let me know soon,
16 maybe even today.

17 Did you read each -- they are very short.

18 **MR. BICKS:** Yes, Your Honor. I read it. We did read
19 it.

20 **THE COURT:** So I'm happy to do what Mr. Van Nest said.
21 If you two agree on a written statement, then I could read that
22 to the jury about what the case is about before any arguments
23 are made and that -- that's okay. But what is your problem
24 with letting the jury know the \$8.8 billion number? Why did
25 you want them not to know that number before they answer the

1 questionnaire?

2 **MR. VAN NEST:** I just think before we know exactly how
3 these -- since we have a bifurcated trial, in all likelihood,
4 and since it's not clear exactly what's going to be allowed and
5 so on, why talk about -- you're actual comment didn't say 8.8.
6 You said *large amount of money* or *large amount of damages* and
7 it just seems to me that telling the jury that it's okay in
8 effect to award a large amount of damage right out of the box
9 before --

10 **THE COURT:** No, no, no. I would never say it's okay.
11 I would just say that's what at stake. That's what's being
12 requested.

13 **MR. VAN NEST:** It just seems to me with everything
14 else they're hearing, they don't need to hear that at the
15 beginning either. Your actual statement didn't say 8.8. It
16 said *large*. Do I care a lot about that? No. It's not among
17 the most important things that I objected to.

18 **THE COURT:** They are going to know right away when
19 they see this many lawyers in the courtroom, this case must be
20 worth a lot of money or Google wouldn't have this many lawyers
21 here.

22 **MR. VAN NEST:** I have sure never been -- I have never
23 been in an 8.8 billion dollar case, Your Honor.

24 **THE COURT:** That's the way it comes across, and it
25 takes about five seconds to figure it out. That communicates

1 more to the jury than almost anything else, how many lawyers
2 you have here. If it was just a hundred-million-dollar case,
3 you might just have three lawyers. But -- even in a
4 ten-million-dollar case, but they are going to be thinking big
5 numbers if you got so many lawyers. Maybe even -- even if
6 Oracle alone has that many lawyers. I don't know. But it
7 would be crazy for me to try to say we're never going to
8 mention these numbers. Why can't they even mention that in
9 their opening statement? They ought to be allowed to say for
10 \$8.8 billion --

11 **MR. VAN NEST:** They are not going to ask for that,
12 according to Your Honor's ruling. Yes. I think in the opening
13 you can talk about what you want in terms of dollars.

14 **THE COURT:** They can say that the way this -- as the
15 judge is going to tell you, we have to show the gross profits
16 and then they've got to show -- and we're going to show 8.8 and
17 we'll be anxious to see what they show. That would be okay.

18 **MR. VAN NEST:** That's okay.

19 **THE COURT:** But they can -- so the jury is in a frame
20 of mind that, okay, this billions of dollars are at least being
21 requested.

22 **MR. BICKS:** Yes.

23 **THE COURT:** I just think I would be inviting more
24 headaches than I can possibly stand to say that we're going to
25 keep the jury from knowing the dollar amount until the very

1 end. So --

2 **MR. VAN NEST:** Oh, no. That's not what I suggested.

3 If you want to use the word *large* in your questions,

4 Your Honor, or in the questionnaire, that's okay. That's what

5 I thought was unwise, but do I -- as I say, all you said was

6 *large* and that's fine.

7 **MR. BICKS:** Just so Your Honor -- so there is no kind

8 of surprise or anything, I think it's fair game during the voir

9 dire to, you know, test people's general reaction --

10 **THE COURT:** I think so.

11 **MR. BICKS:** -- to damages.

12 **THE COURT:** I think so. I want you to know you can do

13 that. What you can't do is condition and try to get a

14 commitment or promise or indication of how the juror is going

15 to come out.

16 **MR. BICKS:** Obviously not.

17 **THE COURT:** No, you can't do that.

18 **MR. BICKS:** We won't do that.

19 **MR. VAN NEST:** Thank you, Your Honor.

20 **THE COURT:** All right. See you all maybe Tuesday, but

21 for sure -- what time of day is our -- is it 8:00 a.m. for our

22 conference? I want to do it in the morning. Is it in the

23 morning?

24 **MR. BICKS:** On Wednesday.

25 **THE COURT:** And then maybe we will have one on Tuesday

1 at 8:00 a.m.

2 **MR. BICKS:** Your Honor, on the Tuesday, not that I'm
3 vital to that, but I don't think I will be able to be here, but
4 obviously our team will be.

5 **THE COURT:** You have a very able support team. Good
6 luck to you, wherever you will be. You are excused. All
7 right. Thank you all.

8 **MR. VAN NEST:** Thanks, Your Honor.

9
10 (Proceedings adjourned at 12:12 p.m.)
11
12

13 CERTIFICATE OF REPORTER

14 I certify that the foregoing is a correct transcript
15 from the record of proceedings in the above-entitled matter.
16

17 DATE: Friday, April 22, 2016
18

19 *Pamela A. Batalo*

20

Pamela A. Batalo, CSR No. 3593, RMR, FCRR
21 U.S. Court Reporter
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